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U. S. D. A.

SUMMARY OF REGISTERED

AGRICULTURAL PESTICIDE CHEMICAL USES

(2nd Edition)

U. S. DEPT. OF AGRICULTURE  
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2 Pesticides Regulation Division,  
U.S. Agricultural Research Service,  
United States Department of Agriculture

July 1, 1964

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U. S. D. A.  
SUMMARY OF REGISTERED  
AGRICULTURAL PESTICIDE CHEMICAL USES  
(2nd Edition)

~~X~~ Supplement I ~~X~~

This supplement reflects changes and additions issued in preliminary notices numbered 64-1 through 64-81, 65-1 through 65-12 and an erratum sheet issued on 1-25-65

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United States Department of Agriculture

February 10, 1965





UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE  
Washington, D. C. 20250

July 1, 1964

There is attached a second edition of the USDA Summary of Registered Agricultural Pesticide Chemical Uses which is a compilation of agricultural pesticide chemical uses registered with the U.S. Department of Agriculture.

This publication replaces the first edition of the USDA Summary of Registered Agricultural Pesticide Chemical Uses issued March 1, 1961, including the additions and supplements added since then. The first edition and its supplements are obsolete and should be destroyed.

Supplements to the second edition will be issued periodically to show additions, deletions, and revisions, as was done for the first edition.

Attachment

Issued: 7-1-64

Printed: November 1964

A SUMMARY OF AGRICULTURAL PESTICIDE USES REGISTERED  
WITH THE U.S. DEPARTMENT OF AGRICULTURE

(2nd Edition)

This Summary has been compiled as a service to State and Federal regulatory officials having responsibility for the proper use of pesticides. Agricultural research agencies, agricultural advisors, food processors, and registrants may find it a useful reference. THIS SUMMARY IS NOT A LIST OF RECOMMENDATIONS, nor does it modify or supplant any recommendation made by this Department or any of the various States.

This Summary is a compilation of pesticide uses which directly or indirectly involve raw agricultural commodities, that is food or feed in its raw or natural state. The following is a brief description of the types of pesticide use patterns which are entered in the Summary as well as the use patterns which are not entered in the Summary.

I. Types of use which are entered in the Summary

1. Treatments to crops which will be used as food or feed, or the produce thereof used for food or feed.
2. Soil treatments to land which is or will be planted to crops (described in I.1.).
3. Postharvest treatments to raw agricultural commodities in the field or in storage.
4. Seed treatments to seed that is likely to be diverted to food or feed use, and uses involving systemic pesticides.
5. Treatments to crops which are grown for seed only when the seed is likely to be diverted to food or feed use, and in the case of new and unusual uses of plant regulators, desiccants, or defoliants.
6. Treatments to animals which are used for the production of meat, milk, eggs, or other raw agricultural commodities.
7. Treatments to agricultural premises which could result in the contamination of raw agricultural commodities.



## II. Types of use which are not entered in the Summary

1. Seed treatments other than those described in I.4. above.
2. Treatments to crops grown for seed only, other than those described in I.5. above.
3. Treatments to processed food or feed.
4. Household, commercial, and institutional uses not involving raw agricultural commodities.
5. Treatments to ornamentals, forests, and nonfood crops.
6. Uses on animals other than those described in I.6.

The absence from the Summary of the use patterns which come under Type II above in no way affects the acceptability of these uses for registration under the Act.

The charts show tolerances and exemptions from the need of tolerances which have been established by the Department of Health, Education, and Welfare under provisions of the Pesticide Chemicals Amendment to the Federal Food, Drug, and Cosmetic Act. The charts also show those pesticides which have been formally classified "safe chemicals" under that statute.

When two or more pesticidal chemicals are mixed, the limitations applicable to the ingredients having the most restricted registrations should be followed.

As new chemicals and new patterns of use are registered by the Department, they will be added to present listings. A pattern of use now listed will be revised or deleted should new information support such action.

If you use pesticides, apply them only when needed and handle them with care. Follow the directions and heed all precautions on the container label. If pesticides are handled or applied improperly, or if unused portions are disposed of improperly, they may be injurious to humans, domestic animals, desirable plants, honey bees and other pollinating insects, fish, and wildlife, and may contaminate water supplies.

USE CHEMICALS SAFELY--FOLLOW LABEL DIRECTIONS

## EXPLANATION OF CHARTS

Charts are set up for individual pesticide chemicals, which are identified by the well-known common names as well as by the chemical designations.

The heading of each chart includes the principal formulations which have been registered for the chemical involved. These will cover emulsifiable concentrates (EC), wettable powders (WP), solutions, dusts, powders, fumigants, sprays, granular products, fertilizer mixtures, and pressurized products, where appropriate.

The tabulations on the charts are divided into four columns under the following headings:

- (1) "USE" In this column are listed the crops, animals, or sites of application to which the pesticide is applied.
- (2) "TOLERANCE" In this column is shown the tolerance, the exemption from need for a tolerance, or a declaration as a "safe chemical," if one has been established by the Food and Drug Administration.
- (3) "DOSAGE" This column gives the maximum quantity of the actual chemical that may be applied per single application. It is shown in pounds per acre, percentage concentration, or other specified form.
- (4) "LIMITATIONS (and/or Directions)" -- In this column are listed specific limitations on the application of the pesticide to the given use, applicable under current registrations. These are usually given in the number of days required between last application and harvest. Brief directions for application are also listed in some cases.



#### EXPLANATION OF CHARTS (Cont'd.)

All acceptable uses (dosage rates and related limitations) cannot be shown in the charts. The single dosages and the specific limitations given represent the maximum for safe use. In interpreting the charts, any use involving the dosage given with a longer time limit, or a lower dosage, with the same time limits, would be equally acceptable. A label submitted for registration which lists a higher dosage or more lenient limitations would require data to support such claims before the label could be registered.

USDA SUMMARY OF REGISTERED AGRICULTURAL PESTICIDE CHEMICAL USES  
(2nd Edition)  
I N D E X

Names in small letters: chemical names.  
Names in small letters with an asterisk: coined common names.  
Names capitalized: other names.  
Prefixes alphabetized: any prefix consisting of two or more letters,  
such as bis, di, tri, etc.  
Prefixes not alphabetized: numbers; any prefix consisting of only one  
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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

ACROLEIN\*

PRINCIPAL FORMULATIONS: 85% technical liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Irrigation canals Drainage ditches Ponds		50 ppm (in water)	Aquatic herbicide. Do not permit livestock to drink treated water.

\*Acrylaldehyde

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ACRYLONITRILE

**PRINCIPAL FORMULATIONS:** Various formulations with other fumigating ingredients to suppress flammability

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<u>Commodity</u> <u>Fumigation</u>			
Dates		0.125 gals./ 1000 cu. ft.	Expose to fumigation for 72 hours in a tight fumigation chamber.
Grain: Barley Buckwheat Corn Oats Rice Rye Sorghum Wheat		0.5 gals./ 1000 bu.	Expose to fumigation for 7-10 days.
Nuts		0.125 gals./ 1000 cu. ft.	Expose to fumigation for 4 hours in a vacuum chamber with a 28" vacuum.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

ACTI-DIONE\*

PRINCIPAL FORMULATIONS: 7.7% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cherries		2 ppm spray solution	4 days.

\*Cycloheximide

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ALCOHOL

**PRINCIPAL FORMULATIONS:** With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		32%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN\*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 2 lbs. per gallon; 50% wettable powder; 75% wettable powder for seed treatment; 2.5% dusts and granular mixtures; 0.1% fertilizer mixtures

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	0	2.0	Dormant application to established stands during early spring before growth of first stands of the season. Apply only in Northern U.S.
		0.125	30 days.
		0.5	Apply to soil as a preemergence treatment, or mix with seed at time of planting.
		4.0	Preplanting broadcast soil application.
Apples	0.25	0.25	30 days.
Apricots	0.25	0.25	21 days.
Bananas		3.0	Apply only to surface of ground around trees. When sprays are used, apply coarse spray at low pressure. Avoid contact with leaves.
Barley	0.1 on grain 0.75 on straw	0.5	7 days. Do not feed straw which was treated within 30 days of harvest to livestock or ship interstate.
Barley (seed)		2.0 oz./bu.	Do not use as food or feed.
Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Beets	0.25	0.5	14 days.
Blackeyed Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Broccoli	0.25	0.5	14 days.
Brussels Sprouts	0.25	0.5	14 days.

\*1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-1,4-endo-exo-5,8-dimethanonaphthalene

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bush & Vine Fruits:			
Blackberries		5.0	Preplanting soil application or when no fruit is present. Double dosage on peat or muck soils.
Blueberries			
Boysenberries			
Cranberries	0.1		
Currants		0.25	Wet or dry bait formulations. Follow preharvest interval required for comparable dosage on each crop.
Dewberries			
Gooseberries			
Grapes	0.1		
Huckleberries			
Loganberries			
Raspberries			
Strawberries	0.1		
Youngberries			
Cabbage	0.25	0.5	21 days.
Cantaloupes	0.1	0.5	7 days.
Carrots	0.25	0.5	7 days.
Cauliflower	0.25	0.5	21 days.
Cherries	0.1	0.25	21 days.
Citrus Fruits:			
Grapefruit	0.25	0.25	Foliage application, or wet or dry bait formulation. Do not apply within 30 days of harvest.
Kumquat			
Lemons	0.25		
Limes	0.25		
Oranges	0.25 <sup>1</sup>	5.0	Soil application. Do not contaminate fruit. Double dosage on peat or muck soils when no fruit is present.
Tangerines	0.25		
Tangeloes			
Clover	0	2.0	Dormant application to established stands during early spring before growth of first stands of the season. Apply only in Northern U.S.
		0.125	30 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Clover (cont.)		0.5	Apply to soil as a preemergence treatment or mix with seed at time of planting.
		4.0	Preplanting broadcast.
Collards	0.25	0.5	14 days.
Corn			
Field	0	0.125	21 days. Single application.
Pop		0.25	30 days. Single application.
Sweet		2.0	Broadcast soil application during early summer for control of Hippelates eye gnats. Mix insecticide with top 3 inches of soil.
Corn (seed)		2.0 oz./bu.	Do not use as food or feed.
Cotton		1.5	Do not apply after bolls open. Do not graze meat or dairy animals in treated fields.
		2.0	Broadcast soil application during early summer for control of Hippelates eye gnats. Mix insecticide with top 3 inches of soil.
Cotton (seed)		2.0 oz./bu.	Do not use as food or feed.
Cowpeas (seed)		2.0 oz./bu.	Do not use as food or feed.
Cranberries	0.1	0.25	21 days.
Cucumbers	0.25	0.5	7 days.
Deciduous Fruits and Nuts:			
Almonds		5.0	Soil application when no fruit is present.
Apples	0.25		Double dosage on peat or muck soils.
Apricots	0.25		
Cashews		0.25	Wet or dry bait formulations. Follow preharvest interval required for comparable dosage for each crop.

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## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Deciduous Fruits and Nuts: (cont)		5.0	Soil application when no fruit is present. Double dosage on peat or muck soils.
Cherries	0.1	0.25	Wet or dry bait formulations. Follow preharvest interval required for comparable dosage for each crop.
Chestnuts			
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory nuts			
Nectarines	0.1		
Olives			
Peaches	0.1		
Pears	0.25		
Pecans			
Persimmons			
Plums	0.1		
Pomegranate			
Prunes	0.1		
Quinces	0.25		
Walnuts			
Eggplants	0.1	0.5	3 days.
Endive	0.25	0.5	30 days.
Field, Fiber, & Forage Crops:			
Alfalfa	0	5.0	Preplanting soil application or at time of planting or transplanting. Double dosage on peat or muck soils.
Barley	0.1 (grain) 0.25 (straw)	0.25	
Birdsfoot Trefoil			Wet or dry bait formulations. Follow preharvest intervals required for comparable dosage on each crop.
Buckwheat			
Clover	0		
Corn	0		
Cotton			
Flax			
Grasses			
Hops			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber & Forage Crops:		lbs. actual/A.	
Lespedeza	0	5.0	Preplanting soil application or at time of planting or transplanting. Double dosage on peat or muck soils.
Millet			
Milo			
Oats	0.1		
	(grain)	0.25	Wet or dry bait formulations. Follow preharvest intervals required for comparable dosage on each crop.
	0.25		
	(straw)		
Pasture Grass			
Popcorn	0		
Rice	0.1		
	(grain)		
	0.25		
	(straw)		
Rye	0.1		
	(grain)		
	0.25		
	(straw)		
Safflower			
Soybeans	0		
Sugarbeets			
Sugarcane			
Vetch			
Wheat	0.1		
	(grain)		
	0.25		
	(straw)		
Flax		0.25	Do not feed to dairy animals within 28 days after treatment. Do not feed to animals being finished for slaughter.
Grain Crops (seed)		2.0 oz./bu.	Do not use as food or feed.
Grapefruit	0.25	0.25	30 days.
Grapes	0.1	0.25	7 days.
Grass			
Pasture Range		1.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

AIDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grass (cont.)		lbs. actual/A. 0.125-0.25	Single application per season. Do not graze dairy animals on treated forage. Avoid grazing animals moving to slaughter for 90 days following date of application. Other livestock to be overwintered may remain on treated areas.
Horseradish	0.25	0.5	7 days.
Kale	0.25	0.5	14 days.
Kohlrabi	0.25	0.5	14 days.
Lemons	0.25	0.25	30 days.
Lettuce	0.25	0.5	30 days.
Lima Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Limes	0.25	0.25	30 days.
Mangoes	0.1	0.25	21 days.
Melons	0.1	0.5	7 days.
Mint		5.0	Preplanting soil application or just prior to fall or spring discing or harrowing in old plantings.
Mustard Greens	0.25	0.5	14 days.
Nectarines	0.1	0.25	21 days.
Oats	0.1 on grain 0.75 on straw	0.5	7 days. Do not feed straw which was treated within 30 days of harvest to livestock.
Oats (seed)		2 oz./bu.	Do not use as food or feed.
Onions	0.25	0.5	Apply in a 12 inch band over row. Make one application when seedlings first appear, a second 10 days later, and a

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Onions (cont.)			third at the middle of the growing season.
Oranges	0.25	0.25	30 days.
Parsnips	0.25	0.5	7 days.
Peaches	0.1	0.25	21 days.
Peanuts (seed)		2.0 oz./bu.	Do not use as food or feed.
Pears	0.25	0.25	30 days.
Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Peppers	0.1	0.5	3 days.
Pimentos	0.1	0.5	3 days.
Pineapples	0.1	2.0	30 days. Do not feed husks to meat or diary animals.
		10.0	Preplanting soil treatment.
Potatoes	0.1	0.5	No limitation.
Plums	0.1	0.25	21 days.
Prunes	0.1	0.25	21 days.
Pumpkins	0.1	0.5	7 days.
Quinces	0.25	0.25	30 days.
Radishes	0.1	0.5	7 days.
Rice	0.1 on grain 0.75 straw	0.5	7 days. Do not feed straw which was treated within 30 days of harvest to livestock.
Rice (seed)		4.0 oz./bu.	Do not use as food or feed.
Rutabagas (including tops)	0.25	0.5	14 days.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**ALDRIN**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Rye	0.1 on grain 0.75 on straw	0.5	7 days. Do not feed straw which was treated within 30 days of harvest to livestock.
Rye (seed)		2.0 oz./bu.	Do not use as food or feed.
Safflower (seed)		2.0 oz./100 lbs	Do not use treated seed for food, feed, or oil.
Salsify	0.25	0.5	14 days.
Sorghum (grain & cane)	0	0.125	21 days. Single application.
		0.25	30 days. Single application.
		3.0	Preplanting soil application.
Sorghum (seed)		2.0 oz./bu.	Do not use as food or feed.
Soybeans	0	0.125	30 days. Single application.
Soybeans (seed)		2.0 oz./bu.	Do not use as food, feed, or oil.
Spinach	0.25	0.5	14 days.
Squash			
Summer	0.25	0.5	7 days.
Winter	0.1	0.5	7 days.
Sweet potatoes	0.1	0.5	No time limitations.
Swiss chard	0.25	0.5	14 days.
Tangerines	0.25	0.25	30 days.
Tomatoes	0.1	0.5	1 day.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Tropical Fruits:			
Avocados		5.0	Soil application when no fruit is present. Double dosage on peat or muck soils.
Guavas			
Mangoes	0.1		
Papayas			
Passion fruit		0.25	Wet or dry bait formulations. Follow preharvest interval required for comparable dosages on each crop.
Turnips	0.25	0.5	14 days.
Vegetables:			
Asparagus	0.1	5.0	Preplanting soil application, at time of planting or transplanting, or before edible parts start to form. Do not apply to land which will be planted in potatoes.
Beans	0		
Beets	0.25		
	(roots & tops)		
Blackeyed peas	0		
Broccoli	0.25	0.25	Wet or dry bait formulations. Do not contaminate edible parts. Follow preharvest limitation required for comparable dosage on each crop.
Brussels sprouts	0.25		
Cabbage	0.25		
Cantaloupes	0.1		
Cauliflower	0.25		
Celery	0.1		
Collards	0.1		
Corn	0		
Cowpeas	0		
Cucumbers	0.25		
Eggplants	0.1		
Endive	0.25		
Garlic	0.25		
Horseradish	0.25		
Kale	0.25		
Kohlrabi	0.25		
Leeks	0.25		
Lettuce	0.25		
Melons			
Mustard greens	0.25		
Okra			
Onions	0.25		
Parsnips	0.25		
Peas	0		

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALDRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (cont.)		lbs. actual/A.	
Peppers	0.1	5.0	Preplanting soil application, at time of planting or transplanting, or before edible parts start to form. Do not apply to land which will be planted in potatoes.
Pimientos	0.1		
Pumpkins	0.1		
Radishes	0.25		
Rutabagas	0.25		
Salsify	0.25		
Shallots	0.25	0.25	
Spinach	0.25		
Squash (summer)	0.25		
Squash (winter)	0.1		
Swiss chard	0.25		Wet or dry bait formulations. Do not contaminate edible parts. Follow preharvest limitation required for comparable dosage on each crop.
Tomatoes	0.1		
Turnips	0.25		
	(roots & tops)		
Watermelons	0.1		
Wheat	0.1 on grain 0.75 on straw	0.5	
Wheat (seed)		2.0 oz./bu.	
Agricultural Premises			
Greenhouse		6.0	
Imported Fire Ant Control		2.0	
		0.25% in water	Mound treatment. Thoroughly saturate each mound.
		1.5% dust	Mound treatment. Open mound and mix 2 cups of dust with soil. Apply a band of dust 2 ft. wide around the base of mound.



**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

ALLETHRIN\*

**PRINCIPAL FORMULATIONS:** Technical allethrin (usually 96%), with or without appropriate synergists; 1% dust; 0.1% to 0.6% aerosol formulations and in distillate formulations with or without synergists and other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Beans	Exempt	0.5	Dust only. No time limitations.
Blackberries	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Blueberries	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Broccoli (sprouting)	Exempt	0.5	Dust only. No time limitations.
Brussels sprouts	Exempt	0.5	Dust only. No time limitations.
Cabbage	Exempt	0.5	Dust only. No time limitations.
Cauliflower	Exempt	0.5	Dust only. No time limitations.
Collards	Exempt	0.5	Dust only. No time limitations.

\* Allyl homolog of Cinerin I

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALLETHRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Crabapples	4 ppm of allethrin 8 ppm of piperonyl butoxide	lbs. actual/A.  0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Currants	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Figs	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Gooseberries	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Grapes	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALLETHRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Guavas	4 ppm of allethrin 8 ppm of piperonyl butoxide	lbs. actual/A.  0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Horseradishes	Exempt	0.5	Dust only. No time limitations.
Huckleberries	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Kale	Exempt	0.5	Dust only. No time limitations.
Kohlrabi	Exempt	0.5	Dust only. No time limitations.
Lettuce	Exempt	0.5	Dust only. No time limitations.
Loganberries	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Mangoes	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Mushrooms	Exempt	0.6 gms./ 1000 cu. ft.	Dust application inside mushroom house. No limitation.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALLETHRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Muskmelons	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Mustard	Exempt	0.5	Dust only. No time limitations.
Oranges	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Peaches	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Pears	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.
Pineapples	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space  0.2% emulsion dip	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.  Post-harvest application. Dip injured fruits at time of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALLETHRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Plums (fresh prunes)	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Radishes	Exempt	0.5	Dust only. No time limitations.
Raspberries	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Rutabagas	Exempt	0.5	Dust only. No time limitations.
Stored Grain			
Barley	2	0.2 lbs./1000	Post-harvest application. Apply to
Corn		sq. ft. of	surface of stored grain.
Milo		grain surface	
Oats			
Rye			
Sorghum			
Wheat			
Tomatoes	4 ppm of allethrin 8 ppm of piperonyl butoxide	0.6 gms./1000 cu. ft. of space	Post-harvest application. Apply directly to, and in space over commodities in storage, processing plants, or in the field.
		0.2% emulsion dip	Post-harvest application. Dip injured fruits at time of harvest.
Turnips	Exempt	0.5	Dust only. No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALLETHRIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Sheep Swine</p> <p>Poultry</p> <p>Agricultural Premises</p> <p>Barns Dairy Barns Milk Rooms Animal Pens Poultry Houses Grain Bins Etc.</p> <p>Mushroom Houses</p>	<p></p> <p></p> <p></p> <p></p> <p>Exempt</p>	<p>lbs. actual/A.</p> <p>3.0% with synergist in water</p> <p>3.0% with synergist in oil</p> <p>1.0% dust or 0.1% dip or spray</p> <p>20.0 mgs./ sq. ft. in oil or water</p> <p>75.0 mgs./1000 cu. ft./hr. as vapor</p> <p>0.6% with synergist</p> <p>0.6 gms./1000 cu. ft.</p>	<p>Thorough application to animal. Usually formulated with other ingredients.</p> <p>Apply as mist or pressurized spray at the rate of 2.0 ounces per animal the size of an adult cow (proportionally less on smaller animals.) Apply liberally to swine. Usually formulated with other ingredients. Repeat as necessary, up to twice daily.</p> <p>Thorough application to birds. Formulated with other ingredients. No limitations.</p> <p>Apply as surface spray to all interior and exterior surfaces.</p> <p>Apply in closed areas by a continuous vaporizer. No limitations.</p> <p>Apply as an aerosol formulation. No limitations.</p> <p>Dust application inside house. No limitations.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ALLYL ALCOHOL

**PRINCIPAL FORMULATIONS:** Technical material; 64.7%, 68.2% and 81% mixtures with ethylene dibromide or DD mixture

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetable seed beds and cold frames for transplant production		lbs. actual/A.  267	Apply 10-12 days before seeding. Seed may be sown 5-7 days after treatment if soil temperature is 80°F. or over.
Garden seed beds		2 gals. 64.7% mixture per 100 sq. yds.	Apply evenly as a drench.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ALUMINUM PHOSPHIDE

PRINCIPAL FORMULATIONS: 55% tablets (3 grams)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS	
Stored Grain:			Exposure Periods	
Barley		180 3-gram	Temp.	Exposure
Corn		tablets per	54-59 degrees F	5 days
Millet		1000 bushels	60-68 degrees F	4 days
Oats		(6 tablets	Over 68 degrees F	3 days
Rice		per ton) fed		
Rye		into grain		
Wheat		stream or		
		inserted by		
		special probe		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

AMETRYNE \*

PRINCIPAL FORMULATIONS: 25% E.C.; 80% W.P.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pineapple		lbs. actual/A.	
		8.0	Preemergence or post-harvest soil application.
Sugar Cane		2.0	Apply at 1-2 month intervals prior to differentiation as needed. Do not apply more than 30 lbs. actual chemical per acre per crop cycle. Do not apply within 160 days of harvest.
		8.0	Preemergence application or after ratooning.
		4.0	Apply 1 or 2 interline spray applications before cane closes in. Do not apply more than 16 lbs. actual chemical per acre per crop cycle.

\*2-methylthio-4-ethylamino-6-isopropylamino-s-triazine

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

5-AMINO-4-CHLORO-2-PHENYL-3(2H) PYRIDAZINONE  
AND RELATED CHLOROPHENYL PYRIDAZINONE\*

**PRINCIPAL FORMULATIONS:** 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beets		lbs. actual/A. 4.0	Preemergence soil application or post-emergence application immediately after beets emerge and before weeds form more than 2 true leaves (2 weeks after planting).
Sugar beets		4.8	Preplanting soil incorporation 1-2" deep immediately before planting.
		4.0	Preemergence soil application or post-emergence application immediately after beets emerge and before weeds form more than 2 true leaves (2-3 weeks after planting).

\*Proprietary name: Pyrazon

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-AMINO-2,5-DICHLOROBENZOIC ACID\*

PRINCIPAL FORMULATIONS: 23.4% liquid; 10.8% granular ammonium salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Asparagus		3.0	Preemergence application to seedbed immediately after planting (seed only).
Beans (dry)		3.0	Preplant soil incorporation. Mix with 1-2 inches of soil immediately after application. Do not graze treated areas or use treated plants for feed or forage. or Preemergence application. Do not graze treated areas or use treated plants for feed or forage.
Corn (Field)		2.0	Preemergence application at time of planting. Plant seed 2-2½ inches deep. Do not apply to light sandy soils.
Lima Beans		4.0	Preemergence application. Do not graze livestock on treated areas. Do not feed plant parts to livestock.
Peppers		4.0	Post transplanting application 3-5 days after transplanting to clean cultivated soil. Do not use on light sandy soil. Do not graze or use plants from treated areas for feed or forage. or Apply 4 weeks after transplanting to clean cultivated soil. Do not graze or use plants from treated areas for feed or forage. or Apply immediately after last cultivation. Do not graze or use plants from treated areas for feed or forage.
Pumpkins		4.1	Preemergence application at time of planting.

\*Proprietary name: "Amiben"  
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USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-AMINO-2,5-DICHLOROBENZOIC ACID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Safflower (Seed Crop)		lbs. actual/A.  2.0	Preplanting soil application. Mix with 1-2 inches of soil immediately after application. Do not use crops grown on treated land for food, feed, or oil. Do not feed forage to livestock. or Preemergence application. Do not use crops grown on treated land for food, feed, or oil. Do not feed forage to livestock.
Soybeans		3.0	Preemergence application at time of planting or shortly after. Do not graze treated areas or use treated plants for food or forage.
Squash		4.0	Preemergence application at time of planting.
Sweet Potatoes		4.0	Apply in band over row immediately after transplanting and before weeds emerge. Do not graze treated areas or use treated plants for feed or forage.
Tomatoes		4.0	Post-transplanting - single application 3-5 days after transplanting to clean cultivated soil. Do not use on light sandy soil. Do not graze or feed plants from treated areas to livestock. or 4 weeks after transplanting to clean cultivated soil. Do not graze or feed plants from treated areas to livestock. or Immediately after last cultivation. Do not graze or feed plants from treated areas to livestock.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## AMITROLE\*

PRINCIPAL FORMULATIONS: 12.5%, 50%, 90% wettable powder; 21.1% liquid; 1% pressurized container

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Chemical fallow (grainfields)		1.0	Apply between Oct. 1, and Apr. 30, as a spray to soil which is to be planted to grain. Apply after most weeds are up and before they are 5-6 inches tall. Seed fall planted crops after Aug. 1. Do not seed spring planted crops within 3 weeks after application.
Corn		4.0	Preplanting. Treat 10-14 days before preparing soil. Plant corn immediately. Keep livestock off treated area.
Cropland: alfalfa clover grains legumes pastures peas soybeans		4.0	Post-harvest or after final cutting. Do not apply after Oct. 1. Do not plant to crops or graze for 8 months after treatment. Remove all livestock before treatment.
		8.33 lbs. actual/100 gals. water	Spot treatment. Post-harvest or after final cutting. Do not apply after Oct. 1. Do not plant to crops or graze for 8 months after treatment. Remove all livestock before treatment. Do not exceed 4 lbs. actual per acre.
Grapes		2.0	Apply as directed spray when grapes are dormant and weeds and grasses are 2-5 inches tall. Apply only in vineyards which have been established 3 years or longer.
Orchards: (apple and pear)		2.0	Apply before fruit forms and after picking. Do not spray stems, foliage, or trunks of fruit trees.

\*3-amino-1,2,4-triazole

USDA Summary of Registered Agricultural Pesticide Chemical Uses

AMMONIA

PRINCIPAL FORMULATIONS: 100% Liquid Pressurized

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A.  100	Preharvest defoliation. Apply by special equipment 6-8 days before harvest.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## AMMONIUM POLYSULFIDE

PRINCIPAL FORMULATIONS: 65% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		4 pints of 65% liquid per 100 gals. of water	Do not apply after petal fall.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## AMMONIUM SULFAMATE\*

PRINCIPAL FORMULATIONS: 80% and 95% soluble powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Rangelands and pastures		100 lbs./100 gals. water	For the control of woody plants, wet foliage thoroughly. Apply after brush reaches full leaf stage until leaves change color in fall.

\*AMS

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ANILINO CADMIUM DILACTATE - PHENYL MERCURY FORMAMIDE MIXTURE

**PRINCIPAL FORMULATIONS:** Proprietary mixture of 6.25% anilino cadmium dilactate and 6.25% phenyl mercury formamide

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		5.0	Seed treatment only. Do not use treated seed for food, feed, or oil.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ANTHRACENE OIL

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:			
Corn Cribs Storage Bins		100%	Apply thoroughly to wood floors and lower walls at least 3 weeks prior to storing grain.
Poultry Houses Brooder Houses		100%	Apply as a paint to roosts, nests, wood floor, etc. Ventilate brooder houses for one week before housing young birds.

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

ARAMITE\*

**PRINCIPAL FORMULATIONS:** 3% dusts; 15% wettable powder; emulsifiable concentrate containing 2 lbs. active ingredient per gallon; emulsifiable concentrate containing 8 lbs. active ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Almonds		1.2 dust 4.0 spray	Do not apply after husks split or within 15 days of harvest. Do not feed hulls to livestock.
Apples	0	1.8 dust 3.0 spray	Do not apply after edible parts start to form.
Apricots		3.0 dust 1.8 spray	Do not apply when fruit at any stage of growth is present.
Beans		1.2 dust 0.625 spray	Do not apply after edible parts start to form. Do not feed treated bean foliage or threshings to livestock.
Blackberries		1.35 dust 0.5 spray	Do not apply after edible parts start to form.
Blueberries	0	1.2 dust 0.675 spray	Do not apply after edible parts start to form.
Broccoli		1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Cabbage		1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Cauliflower		1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Cantaloupe	0	1.2 dust 0.5 spray	Do not apply after edible parts start to form.
Celery	0	1.2 dust 0.375 spray	Do not apply after seedling stage.
Cherries		3.0 dust 1.8 spray	Do not apply when fruit at any stage of growth is present.
Chestnuts		2.3	Do not apply after husks split.

\*2-(p-tert-butyl phenoxy)-1-methylethyl 2-chloroethyl sulfite

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ARAMITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Corn (Sweet)	0	0.5 spray	Do not apply after tasseling. Do not feed treated corn foliage to livestock.
Cotton		1.35 dust 1.0 spray	Do not apply after bolls open. (30 days before harvest). Do not graze dairy or meat animals in treated fields. Do not feed gin waste to livestock.
Cucumbers	0	1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Currants		1.35 dust 0.5 spray	Do not apply after edible parts start to form.
Eggplants		1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Grapefruits	0	1.2 dust 4.0 spray	Do not apply when fruit at any stage of growth is present.
Grapes	0	1.35 dust 0.5 spray	Do not apply after edible parts start to form.
Lemons	0	1.2 dust 4.0 spray	Do not apply when fruit at any stage of growth is present.
Lettuce		1.2 dust 0.45 spray	Do not apply after seedling stage.
Nectarines		3.0 dust 1.8 spray	Do not apply when fruit at any stage of growth is present.
Okra		1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Oranges	0	1.2 dust 4.0 spray	Do not apply when fruit at any stage of growth is present.
Peaches	0	1.5 dust 2.0 spray	Do not apply after edible parts start to form.
Pears	0	1.5 dust 2.5 spray	Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ARAMITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Peppers	0	1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Plums		1.5 dust 2.0 spray	Do not apply after edible parts start to form.
Potatoes		1.2 dust 0.375 spray	Foliage treatment only.
Prunes		1.5 dust 2.0 spray	Do not apply after edible parts start to form.
Quince	0	3.0 dust 1.8 spray	Do not apply when fruit at any stage of growth is present.
Raspberries		1.35 dust 0.5 spray	Do not apply after edible parts start to form.
Spinach		1.2 dust 0.45 spray	Do not apply after seedling stage.
Squash		1.2 dust 0.375 spray	Do not apply after edible parts start to form.
Strawberries	0	1.2 dust 0.5 spray	Do not apply after edible parts start to form.
Tomatoes	0	1.35 dust 0.375 spray	Do not apply after edible parts start to form.
Walnuts	0	1.2 dust 4.0 spray	Do not apply after husks split or within 15 days of harvest. Do not feed hulls to livestock.
Watermelons		1.2 dust 0.5 spray	Do not apply after edible parts start to form.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

ARSENIC ACID

PRINCIPAL FORMULATIONS: 75.0% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton	(as $\text{As}_2\text{O}_3$ ) 4.0	lbs. actual/A. 4.4	Preharvest desiccant. Do not apply within 4 days of harvest. Do not graze or use treated plants or gin waste for feed or forage.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ARSENIC SULFIDE

**PRINCIPAL FORMULATIONS:** Incidental ingredient in arsenical animal treatments

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Goats</p> <p>Sheep</p>		<p>0.03% in water</p>	<p>Dip. Thorough application to animal. Formulated with other ingredients.</p>

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ARSENIC TRIOXIDE

PRINCIPAL FORMULATIONS: 25 to 75% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grapes		lbs. actual/A. 9.0	Dormant application only.
Animals: Goats Sheep		0.1% in water	Dip. Thorough application to animal. Formulated with other ingredients.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ATRAZINE\*

PRINCIPAL FORMULATIONS: Wettable powder 50%, 80%  
Granular 4.0%, 8.0%

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Chemical Fallow (grainfields)		lbs. actual/A.	
		1.6	Apply to stubble in fall (Sept. 1-Jan. 1), leave fallow 2 years, then plant winter wheat only. (Used in combination with amitrol or dalapon). Do not graze livestock on growing wheat.
		3.0	Apply immediately after wheat harvest, plant to sorghum next spring, leave in fallow 1 year before planting wheat. Do not graze treated areas or feed treated forage to livestock. Do not plant any crop other than wheat and sorghum within 18 months following treatment.
Corn		0.4	Apply to stubble in fall (Sept. 1-Jan. 1), leave fallow 1 year, then plant winter wheat only. (Used in combination with amitrol or dalapon). Do not graze livestock on growing wheat.
		1.0	Postemergence or directed spray when corn is 20-30 inches tall and weeds not over 1½ inches tall.
		4.0	Preplanting. Apply to fields in fall. Do not plant treated fields to any crop other than corn the following spring. or Preemergence or postemergence application. Do not apply later than 3 weeks following planting. Do not plant treated fields to crops other than corn during the same season.
Macadamia Orchards		4.0	Apply just prior to weed emergence before harvest. Repeat application as necessary immediately after gathering nuts from ground during harvest period.

\*2-chloro-4-ethylamino-6-isopropylamino-s-triazine

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

ATRAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pineapples		lbs. actual/A. 6.4	Broadcast application immediately after planting or after plant crop harvest is completed.
		1.6	Apply at 1-2 month intervals. Do not apply more than 30 lbs. per acre per crop cycle. Do not apply within 160 days of fruit harvest. If forage is to be fed to livestock, allow 250 days between last application and feeding.
Sorghum		3.0	Preemergence or early postemergence application before weeds reach height of $1\frac{1}{2}$ inches. May incorporate $\frac{1}{2}$ - $1\frac{1}{2}$ inches deep. Do not graze treated areas or feed forage from treated land to livestock. Do not plant treated soil to any crop other than sorghum or corn within 18 months following application.
Sugar cane		4.0	Preemergence application at time of planting or ratooning and before weeds or cane have emerged. or Postemergence application. Apply once as overall treatment or twice between rows as directed spray. Do not apply more than 10 lbs./A./ season. Apply no later than "close in" after planting, ratooning or stubble crop.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BACILLUS THURINGIENSIS BERLINER

**PRINCIPAL FORMULATIONS:** Dust containing 5 billion viable spores per gram of product; wettable powder containing 25 billion viable spores per gram of product.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Alfalfa	Exempt	$4.5 \times 10^{13}$ viable spores/ acre	No time limitations.
Artichokes	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Bananas	Exempt	$5.5 \times 10^{13}$ viable spores/ acre	No time limitations.
Broccoli	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Cabbage	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Cauliflower	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Celery	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Lettuce	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Melons	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.
Potatoes	Exempt	$10.8 \times 10^{13}$ viable spores/ acre	No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

BACILLUS THURINGIENSIS BERLINER

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes	Exempt	$6.7 \times 10^{13}$ viable spores/ acre	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BARBAN\*

PRINCIPAL FORMULATIONS: 11.8% and 23.6% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Barley		0.5	Apply when majority of wild oats are in 2-leaf stage or rye grass is in seedling stage. Do not apply after crop reaches 4-leaf stage. Do not allow livestock to graze on treated fields until after harvest of crop.
Flax		0.38	Apply when majority of wild oats are in 2-leaf stage (4-9 days after emergence). Do not apply after crop reaches 12-leaf stage (or 2 weeks after crop emerges). Do not feed treated flax straw to livestock.
Lentils		0.38	Apply when majority of wild oats are in 2-leaf stage. Do not apply after crop is in 4-leaf stage or 14 days after crop emergence. Do not feed treated forage or pods to livestock.
Mustard (oil crop)		0.38	Apply when majority of wild oats are in 2-leaf stage. Do not apply after crop is in 3-leaf stage or 14 days after crop emergence. Do not feed treated forage or pods to livestock.
Peas		0.38	Apply when wild oats are in 2-leaf stage (4-9 days after emergence). Do not apply after crop reaches 6-leaf stage (or 10 days after crop emerges). Do not allow livestock to graze treated pea stubble (lower 3 inches of stem).
Safflower		0.38	Apply when wild oats are in 2-3 leaf stage. Do not apply after safflower reaches 8-leaf stage. Do not allow livestock to graze on treated fields until after harvest of crop.

\*4-chloro-2-butynyl m-chlorocarbamate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BARBAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugar beets		lbs. actual/A. 1.0	Apply when wild oats are in 2-leaf stage (4-9 days after emergence). Do not apply later than 1 month after crop emerges. Do not allow livestock to graze treated fields until after crop is harvested.
Wheat Spring Durham		0.5	Apply when majority of wild oats are in 2-leaf stage. Do not apply after crop reaches 4-leaf stage. Do not allow livestock to graze on treated fields until after harvest of crop.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DARIUM FLUOSILICATE

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Bush and Vine Fruits:</p> <p>Blackberries Blueberries Boysenberries Cranberries Currants Dewberries Gooseberries Grapes Huckleberries Loganberries Raspberries Strawberries Youngberries</p> <p>Deciduous Fruits &amp; Nuts:</p> <p>Almonds Apples Apricots Avocados Bananas Cashews Cherries Chestnuts Dates Figs Filberts Guavas Hazelnuts Hickory Nuts Mangoes Nectarines Olives Papayas Passion Fruit Peaches</p>		<p>lbs. Actual/A.</p> <p>10.0</p> <p>10.0</p>	<p>Do not apply after edible parts start to form.</p> <p>Do not apply after edible parts start to form.</p>

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BARIUM FLUOSILICATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Deciduous Fruits & Nuts: (Cont.)		lbs. Actual/A.	
Pears		10.0	Do not apply after edible parts start to form.
Pecans			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Walnuts			
Vegetables:			
Asparagus		10.0	Do not apply after edible parts start to form.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DARIUM FLUOSILICATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables (Cont.)		lbs. Actual/A.	
Peas		10.0	Do not apply after edible parts start to form.
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash (Summer)			
Squash (Winter)			
Sweet Potatoes			
Swiss Chard			
Tonatoes			
Turnips			
Watermelons			



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BASIC COPPER CARBONATE

**PRINCIPAL FORMULATIONS:** Wettable powders and dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs./100 gals.	
Apples	Exempt	1.5	Full bloom, calyx, or late bloom.
Apricots	Exempt	4 to 5	Dormant, red bud early or full bloom, or post-harvest in the late fall.
Citrus	Exempt	0.5 to 1.5	Early season or late fall, or with safeners in summer.
Cherries	Exempt	4 to 5	Popcorn, full bloom or petal fall.
Nectarines	Exempt	4 to 5	Nov. 15 to Dec. 15 or dormant in early spring.
Olives	Exempt	3 to 4	Late fall. Wash fruit after picking.
Peaches	Exempt	4 to 5	Nov. 15 to Dec. 15 or dormant in early spring.
Walnuts	Exempt	2 to 3	2 sprays in early bloom period, with 3rd if needed after bloom.

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

BASIC ZINC SULFATE

PRINCIPAL FORMULATIONS: 20% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peaches		lbs. Actual/A. 3.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BENZALDEHYDE

PRINCIPAL FORMULATIONS: 98% technical grade

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Honey supers		Sprinkle lightly 2 tablespoons on pad of the Fume Pad Chamber	Smoke bees slightly from above to get them running - then place treated fume pad over the top of the supers. Use in shade on a cool day. At the end of the day flush fume pads with water to clean them. Odor disappears from supers in 24 hours.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BENZENE

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Grain (All)</p> <p>Barley Buckwheat Corn Oats Rice Rye Sorghum Wheat</p> <p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Sheep Swine</p>		<p>1.25 gal./ 1000 bu.</p> <p>100%</p>	<p>Formulated with other grain fumigants. Expose to fumigation for 12 hours. 24 hour aeration period.</p> <p>Apply locally to wounds, etc. for screw-worm control. Also formulated with various other screw-worm remedies as smears, liquids, aerosols, etc. Repeat as necessary until wounds have healed.</p>

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BENZYL BENZOATE

PRINCIPAL FORMULATIONS: 30% in liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals (All)		35.0% liquids or ointments	To be used by or on prescription of a veterinarian only. Apply liberally with a swab or brush as a spot treatment on and around infested areas. Used primarily for certain types of mange.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BETA HYDROXY ETHYL HYDRAZINE

PRINCIPAL FORMULATIONS: 80% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pineapples		lbs. actual/A.  3.7	Apply to mature plants 40-55 days before flowering to induce flowering. Do not apply within 1 month of first picking. Do not feed pineapple bran or foliage from treated plants to dairy or meat animals.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

BETA-NAPHTHOXYACETIC ACID

PRINCIPAL FORMULATIONS: 1.23% liquid; 0.00325% low pressure bomb;  
98% sodium salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes Field Greenhouse		1bs. actual/A.  42 ppm or 6.75 grams per acre	Blossom set. Apply in 50-100 gal. water when first flowers appear. Repeat at 10-20 day intervals. Do not make more than 3 applications. Do not apply within 15 days of harvest.
Pineapple		1bs. acid equiv./A  1.12	Increase size and delay maturity. Apply 6-10 weeks before expected normal peak harvest. Do not apply within 42 days of harvest. Fruit must be washed before processing. Fruit entering the fresh fruit trade must be washed before release by the grower.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)\*

**PRINCIPAL FORMULATIONS:** Wettable powders containing 12%-36% gamma isomer; dusts containing 1%-3% gamma isomer; emulsifiable concentrates containing 2 lbs. gamma isomer per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A. of gamma isomer	
Alfalfa		0.5	Do not apply after growth is 2 inches tall. Do not pasture until after first cutting. 40 day preharvest limitation also acceptable.
Apples	5	3.6	60 days or not after fruit starts to form.
Apricots	5	3.0	60 days.
		1.0	Brush or spray on lower branches and trunk only.
Asparagus	5	0.3	Do not apply during cutting season.
Avocado	5	3.6	Apply immediately prior to blossoming or immediately after fruit has set.
Barley		2.0 oz./bu.	Do not use as food or feed.
Beans	5	0.3	Do not apply after pods start to form.
Beans			
(Seed)		2.0 oz./bu.	Do not use as food or feed.
Blackeyed Peas	5	0.3	Do not apply after pods start to form.
Blackeyed Peas			
(Seed)		2.0 oz./bu.	Do not use as food or feed.
Blueberries		2.0	Do not apply after edible parts start to form.
Broccoli	5	0.5	Do not apply after seedling stage.

\*1,2,3,4,5,6-hexachlorocyclohexane

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A. of gamma isomer	
Broccoli		1.6	Apply to soil around base of plants at time of transplanting.
Brussels Sprouts	5	0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.
Cabbage	5	1.0	Do not apply after thinning.
		0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.
Cauliflower	5	0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.
Celery	5	0.3	Do not apply after seedling stage.
Cherries	5	1.0	Brush or spray on lower branches and trunk only.
Citrus:			
Grapefruit	5	7.0	Do not apply after edible parts start to form.
Kumquats	5		
Lemons	5		
Limes	5		
Oranges	5		
Tangerines	5		
Tangeloes	5		
Clover		1.25	Soil application. Do not apply to clover which is to be fed to dairy animals or animals being finished for slaughter.
		0.5	Do not apply after growth is 2 inches tall. Do not graze until after first cutting. 40 day preharvest limitation also acceptable.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A. of gamma isomer	
Collards	5	0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.
Corn		1.5	Soil application at time of planting.
Corn (seed)		2.0 oz./bu.	Do not use as food or feed.
Cotton		0.5	Do not graze treated fields by meat or dairy animals. Do not apply to cotton which is rotated with root crops.
Cotton (seed)		2.0 oz./bu.	Do not use as food or feed.
Cowpeas (seed)		2.0 oz./bu.	Do not use as food or feed.
Cranberries		2.0	Do not apply after edible parts start to form.
Currants		2.0	Do not apply after edible parts start to form.
Eggplants	5	0.5	Do not apply after edible parts start to form.
Field, Fiber, and Forage Crops:			
Alfalfa		1.5	Soil application at time of planting.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn	5		
Cotton			
Flax:			

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A. of gamma isomer	
Field, Fiber, and Forage Crops (Cont.)			
Grasses		1.5	Soil application at time of planting.
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass (All)			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugarcane			
Vetch			
Wheat			
Gooseberries		2.0	Do not apply after edible parts start to form.
Grapes	5	3.0	Do not apply after edible parts start to form.
Grass			
Pasture Range		1.5	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Kale	5	0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.
Kohlrabi	5	0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A. of gamma isomer	
Legumes			
Forage		1.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Lettuce	5	1.0	Do not apply after thinning.
Lima Beans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Mustard Greens	5	0.5	Do not apply after seedling stage.
		1.6	Apply to soil around base of plants at time of transplanting.
Nectarines	5	3.0	60 days.
Oats		0.6	Do not apply after heads start to form. Do not pasture or feed treated straw to meat or dairy animals.
Oats			
Seed		2.0 oz./bu.	Do not use as food or feed.
Onions	5	1.0	Do not apply to green or spring onions. (Danger of off-flavor.)
Peaches	5	3.0	60 days.
Pears	5	3.6	60 days or not after fruit starts to form.
Peas	5	0.3	Do not apply after pods start to form.
Peas			
Seed		2.0 oz./bu.	Do not use as food or feed.
Pecans		3.0	Do not apply after shucks begin to open.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A. of gamma isomer	
Peppers	5	0.4	Do not apply after edible parts start to form.
Plums	5	3.0	60 days.
		1.0	Brush or spray on lower branches and trunk only.
Prunes	5	3.0	60 days.
		1.0	Brush or spray on lower branches and trunk only.
Rice			
Seed		2.0 oz./bu.	Do not use as food or feed.
Rye			
Seed		2.0 oz./bu.	Do not use as food or feed.
Sorghum			
Seed		2.0 oz./bu.	Do not use as food or feed.
Soybeans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Spinach	5	0.4	Do not apply after seedling stage.
Strawberries	5	2.0	Do not apply after edible parts start to form.
Sugar Beets		0.3	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Tomatoes	5	0.4	Do not apply after edible parts start to form.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (non-root crops):		lbs. Actual/A. of gamma isomer	
Asparagus		1.5	Soil application at time of planting only.
Beans			
Blackeyed Peas			
Broccoli			
Brussels Sprouts			
Cabbage			
Cantaloupes			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Kale			
Kohlrabi			
Lettuce			
Melons			
Mustard Greens			
Okra			
Peas			
Peppers			
Pimentos			
Pumpkins			
Spinach			
Squash (Summer)			
Squash (Winter)			
Swiss Chard			
Tomatoes			
Watermelons			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A. of gamma isomer	
Walnuts		3.0	Single application. Do not apply after nuts are 1/2 inch in diameter.
Wheat		0.6	Do not apply after heads start to form. Do not pasture or feed treated straw to meat or dairy animals.
Wheat			
Seed		2.0 oz./bu.	Do not use as food or feed.
Animals:			
Beef Cattle		0.75% g.i.	Local application with other ingredients around ears and adjacent areas of head and neck for ear ticks.
Goats		0.5% in water	Spray or wash. Apply locally for control of fleeceworms.
Sheep		0.5% in water	Spray or wash. Apply locally for control of fleeceworms.
Agricultural Premises:			
Animal Pens Barns Etc. (excluding Dairy Barns)		5.0%   0.25% in water	Dust. Thorough application to interior and exterior surfaces. Do not contaminate feed or drinking water.  Spray. Apply to exterior surfaces only. Do not contaminate feed or drinking water.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BHC (Technical)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
General  Uncultivated Land		lbs. actual/A. of gamma isomer	
		0.5%	Spray. Apply uniformly for control of miscellaneous insects.
		1.0	Dust. Apply uniformly for control of miscellaneous insects.
		3.4	Soil application. Do not apply in vicinity of root crops or other crops grown for food or feed.
Outdoors		0.2	Wet or dry bait formulations. Do not contaminate food crops.
		2.0	Dust, mist spray, or fog. Apply uniformly for control of ticks, chiggers, and miscellaneous insects.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BINAPACRYL\*

PRINCIPAL FORMULATIONS: 50% wettable powder; 4% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		2.0	Do not apply after husks split. Do not feed treated hulls to livestock.
Apples		2.0 (Spray)	Do not apply more than 4 times during the fruiting period. Do not apply within 60 days of harvest.
		2.0 (Dust)	Do not apply more than 3 times during the fruiting period. Do not apply within 30 days of harvest.
Cotton		2.0	Do not apply after bolls begin to open. Do not feed treated forage to livestock. Use limited to Arizona, California, and New Mexico only.
Pears		2.0 (Spray)	Do not apply more than 3 times during the fruiting period. Do not apply within 60 days of harvest.
		2.0 (Dust)	Do not apply more than 3 times during the fruiting period. Do not apply within 30 days of harvest.
Plums		2.0	Do not apply more than 2 times after petal-fall. Do not apply within 60 days of harvest.
Prunes		2.0	Do not apply more than 2 times after petal-fall. Do not apply within 60 days of harvest.
Walnuts		2.0	Do not apply after husks split. Do not feed treated hulls to livestock.

\*2-sec-butyl-4,6-dinitrophenyl  
3-methyl-2-butenate

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 2,3,4,5-BIS(2-BUTYLENE) TETRAHYDRO FURFURAL\*

**PRINCIPAL FORMULATIONS:** 0.2%-5.0% in petroleum distillate or 0.1%-0.2% in water, in combination with other insecticidal ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:			
Beef Cattle		0.2% in oil	Apply as a mist spray. Do not wet hides of animals.
Dairy Cattle			
Goats			
Sheep		2.0% in oil	Apply by rubbing devices. No limitations.
Swine			
		0.2% in water	Apply 1 quart per animal the size of an adult cow. Apply daily for 3 days and every second day thereafter for residual repellency.
Agricultural Premises:			
Barns		0.2% in oil	Apply as a space spray in dairy barns when cows are in barn. Formulated with other ingredients. Do not contaminate milk or milking equipment.
Dairy Barns			
Feed Rooms			
Hog Pens			
Milk Rooms			
Poultry Houses		5.0% in oil	Apply to all interior surfaces. May be formulated with other ingredients. Do not contaminate milk, milk handling equipment, feed or drinking water.
Etc.			
		0.1% in water	Apply thoroughly to all surfaces to the point of run-off. Formulated with other ingredients. Do not contaminate milk, milk handling equipment, feed, or drinking water.

\*Proprietary name: "MGK R-11"



USDA Summary of Registered Agricultural Pesticide Chemical Uses

BIS (P-CHLOROPHENOXY) METHANE\*

PRINCIPAL FORMULATIONS: 40% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Oranges (Navel)		lbs. actual/A.  6.0 (spray)	Apply to trees after harvest or before fruit set when no fruit is present.

\*Proprietary Name: Neotran

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,2-BIS (4-CHLOROPHENYL) ETHANOL\*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 2 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		3.0	Apply only before fruit forms or after harvest.
Beans (dry)		1.0	Do not apply within 14 days of harvest. Do not apply more than once per season. Do not apply to green or snap beans.
Pears		3.0	Apply only before fruit forms or after harvest.
Potatoes		1.0	Do not apply within 14 days of harvest. Do not apply more than once per season.
Sugar beets		1.0	Do not apply within 60 days of harvest. Do not apply more than once per season. Do not feed treated tops to livestock.

\*Proprietary name: "Dimite"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,1-BIS(CHLOROPHENYL)-2,2,2-TRICHLOROETHANOL\*

**PRINCIPAL FORMULATIONS:** 18.5% wettable powder; 18.5% emulsifiable concentrate containing 1.91 lbs. of technical "Kelthane" per gallon (1.62 lbs. of active ingredient per gallon)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		4.0	14 days. Do not feed treated hulls to livestock.
Apples	5.0	4.5	7 days.
Apricots	10.0	3.2	14 days.
Avocadoes		4.0	Apply before fruit forms or after harvest only.
Beans			
Dry	5.0	0.6 (spray)	7 days. Do not feed treated vines to
Green		1.5 (dust)	meat or dairy animals.
Lima			
Beans			
Dry	5.0	0.8 (spray)	45 days. Do not feed treated vines to
			meat or dairy animals.
Blackberries	5.0	1.2	2 days.
Boysenberries	5.0	1.2	2 days.
Bushnuts	5.0	4.0	14 days.
Butternuts	5.0	4.0	14 days.
Cantaloupes	5.0	0.6 (spray)	2 days.
		1.5 (dust)	
Cherries	5.0	3.2	7 days. Do not repeat application
			within 30 days.
Chestnuts	5.0	4.0	14 days.
Citrus (All)	10.0	8.0	7 days.

\*Proprietary name: "Kelthane"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,1-BIS(CHLOROPHENYL)-2,2,2-TRICHLOROETHANOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs.actual/A.	
Corn (Field corn only)		1.6	Do not apply after ears begin to form. Do not ensile treated corn or use it as forage.
Cotton	0.1 (on seed)	1.6	14 days. Do not graze treated fields by meat or dairy animals.
Crabapples	5.0	4.5	7 days.
Cucumbers	5.0	0.6 (spray) 1.5 (dust)	2 days.
Dewberries	5.0	1.2	2 days.
Eggplants	5.0	0.8 (spray) 1.5 (dust)	2 days.
Figs	5.0	2.0	7 days. Do not repeat application within 30 days.
Grapes	5.0	1.2 (spray) 1.5 (dust)	7 days.
Hops	30.0	1.2 (spray) 1.5 (dust)	7 days.
Loganberries	5.0	1.2	2 days.
Melons	5.0	0.6 (spray) 1.5 (dust)	2 days.
Mint		1.5	Apply only to mint grown in Pacific Northwest States for commercial oil production. No application within 30 days of harvest. Do not ship interstate, or feed fresh or spent mint hay to dairy animals or animals being finished for slaughter.
Nectarines	10.0	3.2	14 days.
Nuts (all)	5.0	4.0	14 days.
Peaches	10.0	3.2	14 days.
Pears	5.0	4.5	7 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,1-BIS(CHLOROPHENYL)-2,2,2-TRICHLOROETHANOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peppers	5.0	0.8 (spray) 1.5 (dust)	2 days.
Plums	5.0	2.0	7 days. Do not repeat application within 30 days.
Potatoes		1.5	No limitations.
Prunes	5.0	2.0	7 days. Do not reapply within 30 days.
Pumpkins	5.0	0.6 (spray) 1.5 (dust)	2 days.
Quinces	5.0	4.5	7 days.
Raspberries	5.0	1.2	2 days.
Squash			
Summer	5.0	0.6 (spray)	2 days.
Winter		1.5 (dust)	
Strawberries	5.0	2.4	2 days.
Sugar Beets		6.0	60 days. Do not feed treated tops to livestock. Limited to Northwest.
		1.2	21 days. Do not feed crop residues (tops) to dairy animals or meat animals.
Tomatoes	5.0	0.8 (spray) 1.5 (dust)	2 days.
Watermelons	5.0	0.6 (spray) 1.5 (dust)	2 days.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

BIS (DIALKOXYPHOSPHINOTHIOYL) DISULFIDE\*

PRINCIPAL FORMULATIONS: 8% and 82% emulsifiable concentrate with dormant oil

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		4.0	Dormant application only. Use limited to Pacific Coast States.
Apples		4.0	Dormant application only. Use limited to Pacific Coast States.
Nectarines		6.0	Dormant application only. Use limited to Pacific Coast States.
Peaches		6.0	Dormant application only. Use limited to Pacific Coast States.
Pears		4.0	Dormant or delayed dormant application only.
Plums		6.0	Dormant application only. Use limited to Pacific Coast States.
Prunes		6.0	Dormant application only. Use limited to Pacific Coast States.

\*Proprietary name: "Phostex"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4-BIS (ISOPROPYLAMINO)-6-METHYL THIO-s-TRIAZINE\*

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A.	
		3.0	Preemergence application before weeds emerge.
		0.64	Postemergence application as a directed spray when weeds are less than 2 inches tall and cotton is 6 inches tall.
Potatoes		1.6	Apply at time of last cultivation as a directed spray to weeds less than 2 inches tall.
			Do not plant fall seeded crops on treated areas. Do not feed forage from treated areas to livestock.
Potatoes		3.0	Preemergence application or single application at time of drag-off. Use winter rye for cover crop. Do not use cover crop for food or feed.

\*Proprietary Name: Prometryne

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4-BIS (3-METHOXYPROPYLAMINO)-6-METHYL THIO-s-TRIAZINE

PRINCIPAL FORMULATIONS: 25.5% emulsion concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Safflower		lbs. actual/A.  0.75	Post-emergence application after rosette stage and up to six weeks after planting. Do not apply more than once per year.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BIS (TRIBUTYLTIN) SUCCINATE

PRINCIPAL FORMULATIONS: 5% solution in ethanol

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		200-300 micro-grams/sq.in.	Apply to inside surface of cardboard containers. Allow to dry before packing tomatoes.
		10-20 micro-grams/sq.in.	Apply to cellophane wrappers. Allow to dry before wrapping tomatoes.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BONE OIL

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Sheep Swine</p>		100%	<p>Apply locally to wounds, etc. for screw-worm control. Also formulated with various other screw-worm remedies as smears, liquids, aerosols, etc. Repeat as necessary until wounds have healed.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BORAX AND BORIC ACID

PRINCIPAL FORMULATIONS: 10% to 100% with various diluent or cereal bait ingredients.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Agricultural Premises</p> <p>Barns Grain Bins Poultry Houses Sheep Folds etc. (excluding dairy barns)</p>		<p>lbs. actual/A.</p> <p>1.5 lbs./ 1000 sq. ft. of floor space</p>	<p>Dry formulations with or without bait. Apply liberally in areas where insects hide or congregate. Do not contaminate feed or drinking water.</p>

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BORDEAUX MIXTURE

PRINCIPAL FORMULATIONS: 12.75% metallic copper

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Almonds	Exempt	17.6	No time limitations.
Apples	Exempt	9.0	No time limitations.
Apricots	Exempt	11.0	No time limitations.
Asparagus	Exempt	2.2	No time limitations.
Beans	Exempt	2.2	No time limitations.
Beets	Exempt	2.2	No time limitations.
Blackberries	Exempt	6.6	No time limitations.
Brambles	Exempt	6.6	No time limitations.
Broccoli	Exempt	2.2	No time limitations.
Bushberries	Exempt	6.6	No time limitations.
Cabbage	Exempt	2.2	No time limitations.
Caneberries	Exempt	2.6	No time limitations.
Cantaloupes	Exempt	2.2	No time limitations.
Carrots	Exempt	2.2	No time limitations.
Cauliflower	Exempt	2.2	No time limitations.
Celery	Exempt	2.2	No time limitations.
Cherries	Exempt	2.6	No time limitations.
Citrus	Exempt	6.0	No time limitations.
Cranberries	Exempt	20.0	Apply Between July 20 and August 10.
Cucumbers	Exempt	2.2	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BORDEAUX MIXTURE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Cucurbits	Exempt	2.2	No time limitations.
Currants	Exempt	2.2	No time limitations.
Dates	Exempt	17.6	No time limitations.
Eggplant	Exempt	2.2	No time limitations.
Filberts	Exempt	17.6	No time limitations.
Gooseberries	Exempt	2.2	No time limitations.
Grapes	Exempt	2.8	No time limitations.
Loganberries	Exempt	6.6	No time limitations.
Loquat	Exempt	6.0	No time limitations.
Nectarines	Exempt	11.0	No time limitations.
Onions	Exempt	2.2	No time limitations.
Peaches	Exempt	11.0	No time limitations.
Pears	Exempt	11.0	No time limitations.
Pecans	Exempt	17.6	No time limitations.
Peppers	Exempt	2.2	No time limitations.
Plums	Exempt	11.0	No time limitations.
Potato	Exempt	5.6	No time limitations.
Prunes	Exempt	11.0	No time limitations.
Radishes	Exempt	2.2	No time limitations.
Raspberries	Exempt	6.6	No time limitations.
Spinach	Exempt	2.2	No time limitations.
Squash	Exempt	2.2	No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

BORDEAUX MIXTURE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Strawberries	Exempt	2.6	No time limitations.
Tomato	Exempt	5.6	No time limitations.
Walnuts	Exempt	17.6	No time limitations.
Watermelons	Exempt	2.2	No time limitations.
Youngberries	Exempt	6.6	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## BUTOXY ETHANOL

PRINCIPAL FORMULATIONS: Solvent for other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Bush and Vine Fruits:</p> <p>Blackberries Blueberries Boysenberries Cranberries Currants Dewberries Gooseberries Grapes Huckleberries Loganberries Raspberries Strawberries Youngberries</p>		0.2%	Used as a solvent in combination with other insecticides.
<p>Deciduous Fruits:</p> <p>Apples Apricots Cherries Dates Figs Filberts Nectarines Olives Peaches Pears Persimmons Plums Pomegranate Prunes Quinces</p>		0.2%	Used as a solvent in combination with other insecticides.
<p>Vegetables:</p> <p>Asparagus Beans Beets Blackeyed Peas</p>		0.2%	Used as a solvent in combination with other insecticides.

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BUTOXY ETHANOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)			
Broccoli		0.2%	Used as a solvent in combination with other insecticides.
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard			
Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash			
(Summer)			
Squash			
(Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			

BUTOXY ETHANOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)			
Watermelons		0.2%	Used as a solvent in combination with other insecticides.
Animals:			
Beef Cattle		2.5%	Dip or spray. Used as a solvent in combination with other insecticides.
Dairy Cattle		(in oil or water)	
Goats			
Sheep			
Swine			
Agricultural Premises:			
Animal Pens		2.5%	Used as a solvent in combination with other insecticides.
Barns		(in oil or water)	
Dairy Barns			
Grain Bins			
Milk Rooms			
Poultry			
Houses			

## BUTOXY POLYPROPYLENE GLYCOL

PRINCIPAL FORMULATIONS: Usually formulated with suitable amounts of other insecticides and repellents. Smears and liquids containing 10%; oil base sprays containing up to 10%; emulsifiable concentrates and petroleum distillate concentrate formulations containing up to 55%.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Growing Plants			This ingredient is frequently used as a solvent in emulsifiable and pressurized plant sprays.
Animals:			
Beef Cattle		8.6% in oil	Apply as a mist spray to outer hair at the rate of 2.0 ounces per animal. Usually formulated with other ingredients.
Dairy Cattle			
Goats		5.3% in oil	Apply to head and face of cattle at the rate of 1.5 ounces per animal as needed for protection against face flies. Usually formulated with other ingredients.
Sheep			
Swine		27.0% pressurized spray	Apply to outer hair as a pressurized spray. Usually formulated with other ingredients.
		10.0% in water	Apply 2.0 quarts per animal the size of an adult cow. Usually formulated with other ingredients.
		5.0% dust	Apply 50.0 grams per animal on shoulders and back. Rub dust into hair thoroughly for protection against horn flies. Usually formulated with other ingredients. No limitations.
		35.0% in smears or liquids	Apply liberally in spot treatments to wounds and abrasions for protection against screwworms. Formulated with other ingredients. No limitations.
		50.0% in oil	Apply daily by treadle-operated spraying devices at the rate of 8.0 ml. per animal. Usually formulated with other ingredients. No limitations.
		55.0% in oil	Apply by back-rubbers. No time or frequency limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

BUTOXY POLYPROPYLENE GLYCOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:			
Animal Pens		1.4 lbs./	Apply liberally to all interior surfaces
Barns		1000 sq. ft.	with special emphasis on cracks and
Dairy Barns		in water	crevices, etc. Usually formulated with
Elevators			other ingredients.
Grain Bins		10.0%	Apply liberally to exterior surfaces of
Milk Rooms		in water	various premises. Usually formulated
Poultry Houses			with other ingredients.
etc.		8.6%	Apply as a mist spray. Fill closed area
		in oil	with mist and keep closed for 10 minutes.
		or water	Usually formulated with other ingredients.
			Do not contaminate milk or milking
			equipment.
		50.0%	Apply by a fogging machine or microsol
			applicator inside buildings. Keep
			buildings closed for 10 minutes. Usually
			formulated with other ingredients. Do
			not contaminate milk or milking equipment.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## B-BUTOXY, B'-THIOCYANO-DIETHYL ETHER\*

### PRINCIPAL FORMULATIONS:

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<b>Animals:</b>  Beef Cattle Dairy Cattle Goats Poultry Sheep Swine		<b>Thiocyanates</b>  3.5% (in oil)  3.5% (in oil)  1.5% (powder)	Apply as a mist spray to outer hair at the rate of 2.0 ounces per animal the size of an adult cow. Do not wet hide of animal.  Apply 2.5 ounces per animal the size of an adult cow and rub into hair. Do not repeat application within three weeks.  Apply thoroughly to animal for control of lice.
<b>Agricultural Premises:</b>  Barns Dairy Barns Grain Bins Grain Elevators Hog Pens Milk Rooms Poultry Houses Sheep Folds Etc.		4.0% (in oil)	Apply as a space spray. Fill room with mist and keep closed for 10 minutes. Do not contaminate feed, milk, milk handling equipment, or drinking water.

\*Proprietary name: "Iethane 384" (containing 54.5% B-butoxy B'-thiocyano-diethyl ether, and 45.5% petroleum distillate.)



USDA Summary of Registered Agricultural Pesticide Chemical Uses

N,N-DI-n-BUTYL-p-CHLORO BENZENESULFONAMIDE\*

PRINCIPAL FORMULATIONS: 10% wettable powder in combination with 50% DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<u>Agricultural Premises:</u>  Barns Hog Pens Sheep Folds Others (excluding dairy barns and poultry houses)		lbs. actual/A.   1.2% in water	(Used in combination with DDT) Apply to all surfaces as a residual spray. Remove all animals from buildings prior to treatment. Do not contaminate food, feed, or drinking water.

\*Proprietary name: "WARF Antiresistant"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DI-n-BUTYL SUCCINATE\*

**PRINCIPAL FORMULATIONS:** 20% emulsifiable concentrates; 2% petroleum distillate sprays. Usually in combination with oleic acid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Swine</p>		<p>2.0% in oil</p> <p>2.0% in water</p> <p>1.0% in oil</p>	<p>Apply to outer hair as a mist spray at the rate of 2.0 oz. per animal the size of an adult cow.</p> <p>Apply as a wetting spray at the rate of 1.0 qt. per animal the size of an adult cow.</p> <p>Apply by rubbing devices. Allow animals free access to devices.</p>
<p>Agricultural Premises:</p> <p>Barns Dairy Barns Feed Rooms Milk Rooms Stables Misc. Farm Buildings</p>		<p>2.0% in oil</p>	<p>Apply as a coarse spray to all surfaces. Can be applied as a space spray. Do not contaminate milk or milk handling equipment.</p>

\*Proprietary name: "Tabutrex"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CADMIUM SULFATE

PRINCIPAL FORMULATIONS: 14% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		14% solution	Paint bark surface in infected area. Avoid spattering or dripping on fruit adjacent to treated areas. Do not use as food or feed any fruit which shows injury.
Pears		14% solution	Paint bark surface in infected area. Avoid spattering or dripping on fruit adjacent to treated areas. Do not use as food or feed any fruit which shows injury.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CALCIUM ARSENATE

**PRINCIPAL FORMULATIONS:** 70% wettable powder; dusts containing 5% or more of active ingredients; 15% baits

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Alfalfa		1.4	Single application. Do not cut or pasture within 30 days after application.
Asparagus	3.5	6.0	Do not apply during cutting season.
Beans			
Dry	3.5	15.0	No time limitations.
Lima	3.5	15.0	Do not apply after pods start to form if beans are to be marketed in pods.
String	3.5	15.0	Do not apply after edible parts start to form.
Beets		20.0	Do not apply after seedling stage if tops are to be used as food.
Blackberries	3.5	20.0	Do not apply after edible parts start to form.
Blackeyed Peas	3.5	15.0	No limitations if peas are shelled before marketing.
Blueberries	3.5	6.0	14 days for processed fruit. 30 days for fresh fruits.
Broccoli	3.5	25.0	Do not apply after edible parts start to form.
Brussels Sprouts	3.5	25.0	Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Bush & Vine Fruits:			
Blackberries	3.5	15.0	Bait formulations. Do not apply to foliage or other plant parts.
Blueberries	3.5		
Boysenberries			
Cranberries			
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries	3.5		
Loganberries	3.5		
Raspberries	3.5		
Strawberries	3.5		
Youngberries			
Cabbage	3.5	25.0	Do not apply after edible parts start to form.
Carrots	3.5	20.0	No limitations. Do not use treated tops for food or feed.
Cauliflower	3.5	25.0	Do not apply after edible parts start to form.
Celery	3.5	25.0	Do not apply after bunch begins to form or after plants are half grown.
Collards	3.5	25.0	Do not apply after seedling stage.
Cotton		20.0	No time limitations.
Cucumbers	3.5	8.5	Remove excess residues at harvest.
Eggplants	3.5	12.0	Do not apply after edible parts start to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Field & Forage Crops:			
Alfalfa		15.0	Bait formulations. Do not apply to foliage or other plant parts.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn	3.5		
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Huckleberries	3.5	6.0	14 days for processed fruit. 30 days for fresh fruit.
Kale	3.5	25.0	Do not apply after seedling stage.
Kohlrabi	3.5	25.0	Do not apply after edible parts start to form.
Lettuce		8.5	Do not apply after heads start to form. Do not apply to leaf lettuce after seedling stage.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Loganberries	3.5	20.0	Do not apply after edible parts start to form.
Melons	3.5	8.5	No time limitations.
Mint		25.0	Do not apply to mint for salad use.
Pecans		14.0	Do not apply after husks have opened.
Peppers	3.5	12.0	Remove excess residues at harvest.
Potatoes		25.0	No time limitations.
Pumpkins	3.5	8.5	No time limitations.
Raspberries	3.5	20.0	Do not apply after edible parts start to form.
Rutabagas	3.5	25.0	Do not apply after seedling stage if tops are to be used as food or feed.
Spinach	3.5	25.0	Do not apply after seedling stage.
Squash			
Summer	3.5	8.5	Remove excess residues at harvest.
Winter			
Strawberries	3.5	6.0	Do not apply after fruit starts to form.
Tomatoes	3.5	12.0	Remove excess residues at harvest.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tree Fruits:	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Almonds		15.0	Bait formulations. Do not apply to foliage or other plant parts.
Apples			
Apricots			
Avocados			
Cashews			
Cherries			
Chestnuts			
Dates			
Figs			
Filberts			
Grapefruit			
Guavas			
Hazelnuts			
Hickory Nuts			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Pecans			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangerines			
Tangeloes			
Walnuts			
Turnips	3.5	25.0	Do not apply after seedling stage if tops are to be used as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Vegetables:			
Asparagus		15.0	Bait formulations. Do not apply to foliage or other plant parts.
Beans	3.5		
Beets			
Blackeyed Peas	3.5		
Broccoli	3.5		
Brussels	3.5		
Sprouts			
Cabbage	3.5		
Cantaloupes			
Carrots	3.5		
Cauliflower	3.5		
Celery	3.5		
Collards	3.5		
Corn	3.5		
Cowpeas	3.5		
Cucumbers	3.5		
Eggplants	3.5		
Endive			
Garlic			
Horseradish			
Kale	3.5		
Kohlrabi	3.5		
Leeks			
Lettuce			
Melons	3.5		
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers	3.5		
Pimentoes			
Potatoes			
Pumpkins	3.5		
Radishes			
Rutabagas	3.5		
Salsify			
Shallots			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Vegetables: (cont.)			
Spinach	3.5	15.0	Bait formulations. Do not apply to foliage or fruit.
Squash (summer)	3.5		
Squash (winter)	3.5		
Sweet Potatoes			
Swiss Chard			
Tomatoes	3.5		
Turnips	3.5		
Watermelons			
Agricultural Premises:			
Poultry Houses		1.7 lbs./1000 sq. ft. of poultry droppings	Apply to surface of dropping under birds in cages or on wire floor for control of fly larvae.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CALCIUM CYANAMIDE

PRINCIPAL FORMULATIONS: 57% dust; 44%, 46% and 47% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Asparagus		213	Preemergence and post-emergence. Apply when weeds are 1 inch high. Repeat treatment during cutting season. Wash tips before marketing.
Beans		440	Soil application 30 days before planting.
Blueberries		114 (dust)	Dormant application only.
		188 (granular)	Dormant application only.
Celery		440	Soil application 30 days before planting.
Cotton		85.5	Preharvest defoliation. Apply when latest bolls that will make cotton mature, or 7-14 days before harvest.
Crucifers		310	Soil application 30 days before planting.
Fruit Trees:			
Almonds		171	Two equal applications of 85.5 lbs. each. First in early spring. Second about ten days later.
Apples		(soil)	
Apricots			
Avocados			
Cashews			
Cherries			
Chestnuts			
Dates			
Figs			
Filberts			
Guavas			
Hazelnuts			
Hickory Nuts			
Mangoes			
Nectarines			
Olives			

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CALCIUM CYANAMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Fruit Trees: (Cont.)			
Papayas		171	Two equal applications of 85.5 lbs. each.
Passion Fruit		(soil)	First in early spring. Second about ten
Peaches			days later.
Pears			
Pecans			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Walnuts			
Grains:			
Barley		57	Apply when majority of weeds show 4
Oats			leaves. (About 1 inch high).
Rice			
Rye			
Wheat			
Hops		154	Before hoeing and before buds emerge.
Lettuce		440	Soil application 30 days before
			planting.
Peas			
(Canning)		45.6	Apply when majority of weeds show 4
			leaves (about 1 inch high).
Potatoes		440	Soil application 30 days before
			planting.
Timothy		114	Spring application when crop is 3 inches
			high. (May cause temporary browning
			of grass).
Tomatoes		440	Soil application 30 days before
			planting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM CYANAMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables:		lbs. Actual/A.	
Asparagus		45.6	Apply when majority of weeds show 4
Beans			leaves (about 1 inch high).
Beets			
Blackeyed			
Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard			
Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentos			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash			
(Summer)			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM CYANAMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. Actual/A.	
Squash (Winter)		45.6	Apply when majority of weeds show 4 leaves (about 1 inch high).
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			
Vegetables			
Plant Beds		4260 (.88 lbs./ sq. yd.)	Apply to well-prepared plant bed soil 90 days before seeding or 60 days before freezing. Make 2 applications of half the total rate. Work first application into top 3 inches of soil and rake second application into surface soil.
Compost & Top Soil		(6.1 lbs./ cu. yd. soil)	Mix thoroughly with moist screened material as it goes into pile or bin. Wait 8 weeks before using.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CALCIUM CYANIDE

PRINCIPAL FORMULATIONS: Technical material; 42% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Alfalfa		7.5	Granular or flake formulation. Apply as a spot treatment in early spring for control of aphids.
Avocadoes	0	2.0 oz./100 cu. ft. of space	Tent fumigation. Tree should be inclosed within a tent and dust or flakes spread on soil. Expose to fumigation for 45 minutes.
Citrus:			
Grapefruit	0	2.0 oz./100	Tent fumigation. Tree should be inclosed
Kumquats	0	cu. ft. of	within a tent and dust or flakes spread
Lemons	0	space	on soil. Expose to fumigation for 45
Limes	0		minutes.
Oranges	0		
Tangerines	0		
Tangeloes	0		
Corn	0	28.5	Dust. Apply to corn plants and soil. Can be applied as a barrier strip around border of field.
Cucurbits	0	7.5	Dust. Apply a small amount on soil under plants.
Deciduous Fruits			
Apples	0	171.0	Lime mixture. Apply 1/2 of dosage before
Apricots	0		thrips emerge in spring and remaining
Blackberries	0		dosage 10 days later. Disc both applica-
Blueberries	0		tions into soil.
Boysenberries	0		
Cherries	0	10.0	Dust. Mix dust with linseed oil to paste
Cranberries	0		consistency. Apply a small amount in
Currants	0		tunnels for control of apple tree borers.
Dates	0		
Dewberries	0		
Figs	0		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM CYANIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Deciduous Fruits (Cont.)		lbs. Actual/A.	
Gooseberries	0	171.0	Lime mixture. Apply 1/2 of dosage before thrips emerge in spring and remaining dosage 10 days later. Disc both applications into soil.  Dust. Mix dust with linseed oil to paste consistency. Apply a small amount in tunnels for control of apple tree borers.
Grapes	0		
Huckleberries	0		
Loganberries	0		
Nectarines	0		
Olives	0	10.0	
Peaches	0		
Pears	0		
Persimmons	0		
Plums	0		
Pomegranate	0		
Prunes	0		
Quinces	0		
Raspberries	0		
Strawberries	0		
Youngberries	0		
Greenhouse Vegetables:			
Cucumbers	0	0.5 oz./1000	Dust, granular, or flake formulations. Apply on paper or on walks, etc. Overdosage may cause foliage burn. Expose to fumigation for 2 hours in tightly closed greenhouse.
Lettuce	0	cu. ft.	
Radishes	0		
Tomatoes	0		
Honey		1.7 lbs./ 1000 cu. ft.	Dust or flake formulation. Apply on a paper placed on top frames in tightly stacked supers. Cracks between supers, etc. should be taped. Expose to fumigation for 12 hours.
Stored Grain:			
Barley	25	30.0 lbs./	Expose to fumigation for 12 hours or longer.
Buckwheat	25	1000 bu.	
Corn	25		
Oats	25		
Rice	25		
Rye	25		
Sorghum	25		
Wheat	25		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CALCIUM CYANIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. Actual/A.	
Mushroom Houses		17.6 gms./1000 cu. ft.	Apply when crop is in production. Start fumigation at 60 degrees F. and gradually increase heat. Repeat treatment 7 times at 3 day intervals.
		148 gms./1000 cu. ft.	Apply when no mushrooms are present. Houses should be kept heated (130-140 degrees F.) and exposed to fumigation for 12 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-CAPRYL-4,6-DINITROPHENYL CROTONATE\*

PRINCIPAL FORMULATIONS: 25% wettable powder; 1%, 5%, and 10% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Almonds		2.0	Apply during delayed dormant to jacket stage only.
Apples		3.0	21 days.
Apricots		1.0	45 days.
Cantaloupes		0.5	7 days.
Cucumbers		0.5	7 days.
Gooseberries		0.38	21 days.
Grapes		0.75	21 days.
Honeydew Melon		0.56	7 days.
Muskmelon		0.56	7 days.
Peaches		1.0	45 days.
Pears		2.25	21 days.
Pumpkins		0.56	7 days.
Raspberries		0.63	7 days.
Squash		0.5	7 days.
Strawberries		0.38	21 days.
Watermelons		0.56	7 days.

\*Proprietary name: "Karathane"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN\*

PRINCIPAL FORMULATIONS: 25% wettable powder  
 50% wettable powder  
 75% wettable powder (seed treatment only)  
 5.0%; 7.5%; 10.0% and 20.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual A.	
Almonds	100	8.0	Five weeks after petal fall.
		16.0	12 days. Do not feed treated hulls to dairy animals or animals being finished for slaughter.
Apples	100	8.0	No time limitation.
		0.12% solution	Post-harvest spray or dip.
Apricots	100	5.0	Cover sprays--no time limitations.
		0.12% solution	Post-harvest spray or dip.
Asparagus	100	3.6 lbs./100 lbs	Preplanting root dip.
Avacadoes	100	10.0	No time limitations.
Barley		1.2 oz./100 lbs.	Seed treatment (dry).
		1.4 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Beans (Dry and succulent)	100	6.0	Preplanting soil treatment.
		1.25	No time limitations.
		1.9 oz./100 lbs.	Seed treatment (dry).
		1.4 oz./100 lbs.	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Beets, garden (roots and tops)	100	1.5	No time limitations.
		3.3	Preplanting soil treatment.
Blackberries	100	2.5	No time limitations.

\*N-trichloromethylmercapto-4-cyclohexene-1:2-dicarboximide

## CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Blueberries	100	2.5	No time limitations.
Broccoli	100	14.0	Preplanting soil application only.
Brussels sprouts	100	14.0	Preplanting soil application only.
Cabbage	100	14.0	Preplanting soil application only.
Cantaloupes	100	3.8	No time limitations.
		0.25% solution	Post-harvest spray or dip.
		7.5	Preplanting soil treatment only.
Carrots (Roots)	100	3.0	No time limitations.
Cauliflower	100	14.0	Preplanting soil application only.
Celery	100	2.0	No time limitations.
		6.5	Plant bed treatment.
Cherries	100	10.0	No time limitations.
		0.125% solution	Post-harvest dip.
Citrus Fruits:			
Grapefruit	100	10.0	No time limitations.
Lemons	100		
Limes	100	0.12% solution	Post-harvest dip or spray. Do not feed raw citrus byproducts bearing captan residues to dairy animals or animals being finished for slaughter.
Oranges	100		
Tangeloes	100		
Tangerines	100		
Oranges	100	5.0	Apply as after bloom spray from 2/3 petal fall until fruit reaches approximately 1/2 inch in diameter. Do not feed treated raw citrus byproducts to livestock.
Tangeloes	100		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Cole Crops		7.5	Preplanting soil application only.
Corn (sweet)	100	2.0	10 days. Do not feed forage to dairy animals or animals being finished for slaughter.
		6.0	Preplanting soil application.
		1.8 oz./100 lbs.	Seed treatment (dry).
		2.0 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Corn (field)		1.1 oz./100 lbs. seed	Seed treatment (slurry). Do not use treated seed for food or feed.
Cotton	100 (on cotton seed)	6.0	Seed row treatment at planting time.
		2.7 oz./100 lbs.	Seed treatment (dry).
		4.0 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Cowpeas		2.3 oz./100 lbs.	Seed treatment (dry).
		1.5 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Cranberries	100	3.5	No time limitations.
Cucumbers	100	3.8	No time limitations.
		0.25% solution	Post-harvest spray or dip.
Dewberries	100	2.5	No time limitations.
Eggplants	100	2.0	No time limitations.
		7.5	Preplanting soil treatment only.
		6.0	Plant bed treatment when seed have germinated.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Flax		2.7 oz./100 lbs. 1.9 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Gooseberries		3.75	Do not apply after fruit begins to form.
Grapes	100	5.0	No time limitations.
		1.5	Post-harvest aerial application to fruit in drying trays in the field.
		1.0	Post-harvest application to fruit in drying trays in the field. Apply with ground equipment.
Honeydew Melons	100	3.8	No time limitations.
Lettuce	100	2.5	No time limitations.
		7.2	Preplanting soil application only.
Mangoes	100	10.0	No time limitations.
		0.12% solution	Post-harvest spray or dip. Do not feed raw byproducts bearing captan residues to dairy animals or animals being finished for slaughter.
Milo		3.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Nectarines	100	5.0	No time limitations.
		0.12% solution	Post-harvest spray or dip.
Oats		2.0 oz./100 lbs. 1.5 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Onions (green and bulb)	100	1.5	No time limitations.
		0.12% solution	Post-harvest spray or dip.
Packing boxes		1 lb./100 gals.	Spray boxes prior to packing fruits or vegetables or use as a dip.
Peaches	100	5.0	No time limitations.
		6.0	1 day.
		0.12% solution	Post-harvest spray or dip.
Peanuts		6 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Pears	100	8.0	No time limitations.
		0.12% solution	Post-harvest spray or dip.
Peas		6.0	Preplant soil treatment.
		1.2 oz./100 lbs.	Seed treatment (dry).
		1.8 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Peppers	100	3.0	No time limitations.
		6.0	Plant bed treatment after seeds have germinated.
		7.5	Preplanting soil treatment.
Pimentoes	100	3.0	No time limitations.
		6.0	Plant bed treatment.
Pineapples	100	10.0	No time limitations.
		0.6% in water	Post-harvest dip or wash.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Plums	100	5.0	No time limitations.
Potatoes	100	0.12% solution	Post-harvest spray or dip.
		5.0	No time limitations.
		0.5 lb./bushel	Seed piece treatment.
Prunes	100	5.0	No time limitations.
Pumpkins	100	3.8	No time limitations.
Quinces	100	5.0	7 days.
Raspberries	100	2.5	No time limitations.
Rhubard (Forcing under glass)	100	1.5	No time limitations.
Rice		2.7 oz./100 lbs. 1.7 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Rye		1.4 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Safflower		0.3 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Sesame		1.0 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Sorghum		3.0 oz./100 lbs. 2.3 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CAPTAN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Soybeans		lbs. Actual/A.	
		6.0	Soil treatment at planting time.
		2.0 oz./100 lbs.	Seed treatment (dry).
		1.3 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Spinach	100	3.5	Apply to furrow at time of planting.
		1.5	No time limitations.
		6.0	Preplanting soil treatment.
Squash (summer and winter)	100	3.8	No time limitations.
Strawberries	100	3.8	No time limitations.
Sunflowers		0.5 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Tomatoes	100	5.0	No time limitations.
		7.5	Preplanting soil treatment.
Field and greenhouse	100	0.5 pint of 0.12 solution per plant	Transplant water.
Watermelons	100	3.8	No time limitations.
Wheat		1.2 oz./100 lbs.	Seed treatment (dry).
		2.0 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL\*

PRINCIPAL FORMULATIONS: 50% wettable powder; 50% dust base; 5% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	100	1.5	No time limitations.
Almonds	10 (whole almonds)	8.0	No time limitations.
	40 (almond hulls)		
Apples	10	12.0	1 day.
Apricots	10	8.0	3 days.
Asparagus	10	2.0	Apply during cutting season. Do not repeat application within 3 days. Do not apply within 1 day of harvest.
		4.0	Postharvest application to ferns and brush growth.
Bananas	10	1.1	Single application. No time limitations.
Beans	10	2.125	No time limitations.
Beets	5 (roots)	2.0	Do not apply within 3 days of harvest. Do not apply within 14 days of harvest, if tops are to be used as food or feed.
	12 (tops)		
Blackberries	12	2.0	7 days.
Blueberries	10	2.0	No time limitations.
Boysenberries	11	2.0	7 days.
Broccoli	10	2.0	3 days.
Brussels sprouts	10	2.0	3 days.

\*1-naphthyl n-methylcarbamate  
Proprietary name: "Sevin"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL

USE	TOLERANCE (ppm)	DOSAGE lbs. actual/A.	LIMITATIONS
Cabbage	10	2.0	3 days.
Cabbage (Chinese)	10	2.0	14 days.
Carrots	10	2.0	No time limitations.
Cauliflower	10	2.0	3 days.
Cherries	10	6.0	1 day.
Citrus	10	1.25 lbs./ 100 gals.	5 days.
Clover	100	1.5	No time limitations.
Collards	12	2.0	14 days.
Corn	25 (forage)	2.0	No time limitations.
	5 (kernels & cob)		
Cotton	5.0 (on cot- tonseed)	2.5	No time limitations.
	100 (on cot- ton for- age)		
Cowpeas	5.0 (peas)	2.0	No time limitations.
	100 (forage)		
Cranberries	10	3.0 (spray) 4.0 (dust)	1 day.
Cucumbers	10	1.0	No time limitations.
Dandelion	12	2.0	14 days.

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CARBARYL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Dewberries	12	2.0	7 days.
Eggplant	10	4.0	No time limitations.
Endive (Escarole)	10	2.0	14 days.
Filberts	5	5.0	No time limitations.
	1 (in nut meat with shells removed)		
Grapes	10	3.0	No time limitations.
Grapefruit	10	1.25 lbs./ 100 gals.	5 days.
Grass	100 (grass & hay)	1.5	No time limitations.
Horseradish	5	2.0	3 days.
Kale	12	2.0	14 days.
Kohlrabi	10	2.0	3 days.
Lettuce (Head)	10	2.0	3 days.
Lettuce (Leaf)	10	2.0	14 days.
Loganberries	12	2.0	7 days.
Melons	10	1.0	No time limitations.
Mustard Greens	12	2.0	14 days.
Nectarines	10	8.0	3 days.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Okra	10	2.0	No time limitations.
Olives	10	8.0	No time limitations.
Parsley	12	2.0	14 days.
Parsnips	5	2.0	3 days.
Peaches	10	8.0	1 day.
Peanuts	5 (on pea- nuts) 100 (hay)	1.5	No time limitations.
Pears	10	12.0	1 day.
Peas	10 (peas with pods) 100 (forage)	1.5	No time limitations.
Pecans		10.0	Do not apply after husk-split.
Peppers	10	4.0	No time limitations.
Plums	10	6.0	1 day.
Potatoes		2.0	Foliage application only.
Prunes	10	6.0	1 day.
Pumpkins	10	1.0	No time limitations.
Radishes	5	2.0	3 days.
Raspberries	12	2.0	7 days.
Rice	5 (grain) 100 (straw)	2.0	14 days.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**CARBARYL**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Rutabagas	5	2.0	3 days.
Salsify	5 (roots) 10 (tops)	2.0	Do not apply within 3 days of harvest. Do not apply within 14 days of harvest, if tops are to be used as food or feed.
Small Grains:			
Barley	0	1.0	Do not apply after boot stage.
Oats	(grain)		(When grain heads are visible).
Rye			
Wheat	100 (straw)		
Sorghum	10 (grain) 100 (forage)	2.0	21 days for grain. No time limitations for forage.
Soybeans	5 (beans) 100 (forage & hay)	1.5	No time limitations.
Spinach	12	2.0	14 days.
Squash (summer and winter)	10	1.0	No time limitations.
Strawberries	10	2.0	1 day.
Sugar beets	100 (tops)	2.0	14 days.
Sugarcane		3.0	Granular formulations. Do not apply within 30 days of harvest for processing.
Swiss chard	12	2.0	14 days.
Tomatoes	10	4.0	No time limitations.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**CARBARYL**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Turnips	5 (roots) 12 (tops)	lbs. actual/A.  2.0	Do not apply within 3 days of harvest. Do not apply within 14 days of harvest, if tops are to be used as food or feed.
Walnuts	10 (in whole walnuts)	5.0  2.0 lbs. act./ 100 gals. water	No time limitations.  Apply thoroughly to trunk of trees. No time limitations.
<u>Animals</u>			
<u>Poultry:</u>			
Chickens	5.0	0.05 lbs.	Do not apply within 7 days of slaughter.
Ducks	(in meat	act./100 birds	Do not repeat application within 4 weeks.
Game Birds	& fat)	as dust or	Do not contaminate feed or drinking water.
Geese	0	spray	
Partridges	(in eggs)		
Pheasants		.125 lbs.	Dust box treatment. Supplement to litter
Pigeons		act./50 birds	treatment. For poultry on ranges, two
Turkeys			natural wallows may be substituted for
			each dust box. Do not apply within 7
			days of slaughter.
Beef cattle		0.5%	Apply thoroughly to animal at the rate
Hogs		(in water)	of 1 quart per animal the size of an
Sheep			adult cow. Proportionately less for
			smaller animals. Repeat as necessary,
			but not more often than once every 4
			days. Do not apply to dairy animals.
			Do not apply to meat animals within 7
			days of slaughter.
		5.0%	Apply 2 oz. of dust per animal on the
		(dust)	back and neck. Repeat as necessary but
			not more often than once every 4 days.
			Do not apply to dairy animals. Do not
			apply to meat animals within 7 days of
			slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBARYL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p><u>Agricultural</u> <u>Premises</u> Poultry Houses:</p> <p>(for housing) chickens ducks game birds <b>geese</b> <b>partridges</b> <b>pheasants</b> <b>pigeons</b> <b>turkeys</b></p>	<p>5.0 (in meat &amp; fat) 0 (in eggs)</p>	<p>lbs. actual/A.</p> <p>0.3 lbs. act./1000 sq. ft. (spray)</p> <p>1.25 lbs. act./1000 sq. ft. (dust)</p>	<p>Apply thoroughly to floors, roosts, and interior surfaces. Do not apply directly to eggs or nest litter. Do not contaminate feed or drinking water. Do not house birds in treated houses within 7 days of slaughter.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE (a-ISOMER)\*

**PRINCIPAL FORMULATIONS:** 10% wettable powder; 1%-2% dusts; emulsifiable concentrate containing 2 lbs. of active ingredient per gallon; water soluble solution containing 2 lbs. of active ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	1.0	0.5	1 day.
Apples	0.5	3.2	1 day.
Artichokes	1.0	1.0	2 days.
Asparagus		0.5	3 days.
Barley		0.5	14 days.
Beans	0.25	0.5	1 day.
Beets (including tops)	1.0	0.5	3 days.
Broccoli	1.0	0.5	1 day.
Brussels sprouts	1.0	0.5	3 days.
Cabbage	1.0	0.5	1 day.
Cantaloupe	0.5 <sup>1/</sup>	0.5	1 day.
Carrots	0.25	0.5	1 day.
Cauliflower	1.0	0.5	3 days.
Celery	1.0	0.5	3 days.
Cherries	1.0	2.6	2 days.
Clover	1.0	0.5	1 day.
Collards	1.0	0.5	3 days.
		1.0	7 days.

\*Proprietary name: "Phosdrin," a mixture of 60% alpha isomer and 40% related compounds  
<sup>1/</sup> Determined on edible portion with rind removed

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE (a-ISOMER)**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn:			
Field	0.25	0.5	1 day.
Pop	on grain		
Sweet	1.0		
Forage	on		
Grain	forage		
Cotton		0.75	3 days.
Cucumbers	0.25	0.5	1 day.
Cucumbers			
Greenhouse	0.25	0.1 lb./ 50,000 cu. ft.	1 day.
Eggplants	0.25	0.5	1 day.
Flax		0.5	14 days.
Grapefruit	0.25	2.0	1 day. Allow 7 days between applications.
Grapes	0.5	1.0	2 days.
Grass			
Pasture		0.5	1 day (5 days before cutting for grass
Range			hay to be shipped interstate).
Honeydew melons	0.5 <sup>1/</sup>	0.5	1 day.
Kale	1.0	0.5	3 days.
		1.0	7 days.
Lemons	0.25	2.0	1 day. Allow 7 days between applications.
Lettuce	0.5	0.5	2 days.
		1.0	4 days.
Mint		0.5	30 days.

<sup>1/</sup> Determined on edible portion with rind removed

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE (a-ISOMER)**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Muskmelons	0.5 <sup>1/</sup>	0.5	1 day.
Mustard greens	1.0	0.5	3 days.
Oats		0.5	1 $\frac{1}{4}$ days.
Okra	0.25	0.5	1 day.
Onions	0.25 on green onions	0.5	1 day.
Oranges	0.25	2.0	1 day. Allow 7 days between applications.
Peaches	1.0	2.56	1 day.
Pears	0.5	3.2	1 day.
Peas (including forage)	0.25 on peas 1.0 on forage	0.5	1 day.
Peppers	0.25	0.5	1 day.
Plums	1.0	2.56	1 day.
Potatoes	0.25	0.25	1 day.
Pumpkins		0.5	1 $\frac{1}{4}$ days.
Raspberries	1.0	0.64	3 days.
Sorghum (grain & forage)	1.0	0.5	3 days.
Spinach	1.0	0.5	4 days.
		1.0	7 days.

<sup>1/</sup> Determined on edible portion with rind removed

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-CARBOMETHOXY-1-METHYLVINYL DIMETHYL PHOSPHATE (a-ISOMER)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Squash			
Summer	0.25	0.5	1 day.
Winter		0.5	14 days.
Strawberries	1.0	1.0	1 day.
Tomatoes	0.25	0.5	1 day.
Greenhouse	0.25	0.1 lb./ 50,000 cu.ft.	1 day.
Turnips (roots & tops)	0.25 on turnips 1.0 on tops	0.5	3 days.
Walnuts	0.25 <sup>1/</sup>	2.5	1 day.
Watermelons	0.5	0.5	1 day.
Wheat		0.5	14 days.

<sup>1/</sup> Determined on nut meats with shell removed



# **USDA Summary of Registered Agricultural Pesticide Chemical Uses**

## **CARBON DISULFIDE**

**PRINCIPAL FORMULATIONS:** Technical material, usually mixed with carbon tetrachloride, chloroform or other ingredients in order to reduce the fire hazard

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		100%	Inject a few drops into each tunnel in tree made by apple tree borers and plug up entrances with mud or putty.
Commodity Fumigation			
Beans		4-10 lbs./ 1000 cu. ft.	Treatment in a fumigation chamber or other tight container. Dosage varies according to tightness of enclosure and temperature. 24-48 hour exposure at 60 degrees F and above. Repeat as necessary.
Corn	Exempt	2.4 gals./ 1000 bu.	Treatment applied as bins are being filled. Add 0.6-1.2 gal. extra to the first and last 500 bu. entering the bins. Dosages vary according to type and tightness of storage. Seal bins after application and leave under fumigation for 72 hours or longer.
Cowpeas		4-10 lbs./ 1000 cu. ft.	Treatment in a fumigation chamber or other other tight container. Dosage varies according to tightness of enclosure and temperature. 24-48 hour exposure at 60 degrees F and above. Repeat as necessary.
Grain:			
Barley	Exempt	1.6 gals./	No time limitations.
Corn	Exempt	1000 bu.	
Oats	Exempt		
Popcorn	Exempt	3 gal./1000 bu.	Applied evenly as a coarse spray to entire exposed surface of grain from outside of storage receptacles. Seal cracks and holes in structures before treatment to reduce gas leakage. Fumigate for 24 hours or longer at over 65 degrees F. Shallow bins or bins with some leakage may take 4 gal./1000 bu.
Rice	Exempt		
Rye	Exempt		
Sorghum (Milo)	Exempt		
Wheat	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBON DISULFIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain (Cont.)		10-20 lbs./ 1000 cu. ft.	Treatment in a fumigation chamber or other tight container. Fumigate for 24 hours or longer.
Peas		4-10 lbs./ 1000 cu. ft.	Treatment in a fumigation chamber or other tight container. Dosage varies according to tightness of enclosure and temperature. 24-48 hour exposure at 60 degrees F and above. Repeat as necessary.
Soil Fumigation			
Alfalfa Fields		0.25 lbs./ant colony	Mound treatment for control of red harvester ants. Apply by pouring into colony entrance.
Citrus Orchards		2000-6000 lbs./ acre Preplant	Preplanting general soil application or before replanting in citrus orchards. Usually applied with special tools. Do not apply near living trees. Do not apply within 3 weeks of planting.
General Soil Treatment (any crop may be grown in the treated soil)		400-5000 lbs./ acre Preplant	Fumigant usually applied with special tools. Do not apply near living plants. Do not apply within 3 weeks of planting. Do not disturb soil for one week after treatment.
Animals:			
Cattle Hogs		3% in oil	To be used in an oil solution in combination with other insecticides for control of sarcoptic mange. Apply thoroughly over infested area of body. Can be applied by paint brush, sprinkler can or rubbing post. Repeat as necessary.
Agricultural Premises:			
Grain Bins Feed Rooms Storage Rooms		12.0 lbs./1000 cu. ft.	To be used in combination with other ingredients as a space fumigant. Close structure as nearly gas-tight as possible before applying fumigant and expose to fumigation for 12 hours. Buildings

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBON DISULFIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Agricultural Premises:</p> <p>(continued)</p>			<p>should be thoroughly aired after fumigation.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CARBON TETRACHLORIDE

**PRINCIPAL FORMULATIONS:** Technical material, employed as a solvent, and usually in mixtures containing other active ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Commodity Fumigation			
Beans (Dry)		2.0 gals./ 1000 bu.	Commodity treatment in bulk bins with fumigant mixtures containing ethylene dichloride or other ingredients. 72 hours exposure or more usually needed.
		1 qt./ 1000 cu. ft.	Treatment in a fumigation chamber with fumigant mixtures containing ethylene dichloride or other ingredients. 12-24 hours exposure at 75 degrees F. and above usually needed.
Grain:			
Barley	Exempt	10 gals./	No time limitations.
Corn	Exempt	1000 bu.	
Oats	Exempt		
Rice	Exempt		
Rye	Exempt		
Sorghum (Milo)	Exempt		
Wheat	Exempt		
Peanuts		2.0 gals./ 1000 bu.	Commodity treatment in bulk bins with fumigant mixtures containing ethylene dichloride or other ingredients. 72 hours exposure or more usually needed.
Peas (Dry)		2.0 gals./ 1000 bu.	Commodity treatment in bulk bins with fumigant mixtures containing ethylene dichloride or other ingredients. 72 hours exposure or more usually needed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBON TETRACHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Sheep Swine</p> <p>Agricultural Premises:</p> <p>Corrals Dairy Barns Grain Bins Granaries Milk Rooms Poultry Houses</p> <p>Mushroom Houses</p>		<p>20% smear or liquid</p> <p>2 pints/1000 sq. ft.</p> <p>1/2 pint of 5% spray solution per standard (64 foot) double house</p>	<p>To be used in combination with various other ingredients and applied to cuts, wounds, scratches, etc. as screw-worm remedies. Repeat as necessary until wounds have healed.</p> <p>Spray application in mixtures with other insecticidal toxicants as space and residual sprays. Do not contaminate feed, food or equipment. In grain storage areas it is advisable to clean out and dispose of dust and grain remnants before spraying. Repeat as necessary.</p> <p>Applications made with fog generators for mushroom fly control, in mixtures with other insecticidal toxicants.</p>



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CARBOPHENOTHION\*

**PRINCIPAL FORMULATIONS:** 43.7% emulsifiable concentrate; 25% wettable powder;  
3.0% and 4.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	5.0 (fresh forage & hay)	1.0	Do not apply more than once between cuttings. Do not graze or cut for hay within 28 days after application.
Almonds	10.0 (on hulls)	2.5 + 160.0 lbs. of oil in water	Do not apply within 7 days of harvest if hulls are to be used as feed.
		1.8 (dust)	Do not apply within 7 days of harvest if hulls are to be used as feed.
		5.0	Apply 2 weeks after petal fall. Do not feed treated hulls to livestock.
Apples	0.8	1.25	30 days.
Apricots	0.8	2.0 + 128.0 lbs. of oil in water	30 days.
Beans (dry)	0.8 (beans) 5.0 (vines)	3.5	Use only on beans to be marketed as shelled dry beans. Do not feed treated vines or hulls to livestock.
		0.6 (dust) 0.5 (spray)	Do not apply more than twice per season. Do not graze or cut vines for hay within 21 days after application.
Beans (succulent)	0.8 (beans)	0.75 (spray) 1.2 (dust)	7 days. Do not feed treated forage to livestock.
Snap	5.0		
Lima	(vines)	0.6 (dust) 0.5 (spray)	Do not apply within 7 days of harvest. Do not apply more than twice per season. Do not graze or cut vines for hay within 21 days after application.

\*O,O-diethyl S-p-chlorophenylthiomethyl phosphorodithioate  
Proprietary name: "Trithion"

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**CARBOPHENOTHION**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Beets	0.8 (on tops & roots)	0.5 (spray) 1.2 (dust)	21 days if tops are to be used as food or feed.
Blackberries		1.0	Post-harvest application only.
Cantaloupes	0.8	1.0 (spray) 1.2 (dust)	5 days.
Cherries	0.8	1.8 (dust)	30 days.
		2.0 + 128.0 lbs. of oil in water	30 days.
Citrus (all)	2.0	7.5 (in water)	30 days.
		5.0 + 160.0 lbs. of oil in water	30 days.
		5.0 (in water)	14 days.
		3.0 (dust)	14 days.
Clover	5.0 (fresh forage & hay)	1.0	Do not apply more than once between cuttings. Do not graze or cut for hay within 28 days after application.
Corn	2.0 (kernels & cobs with husks removed)	1.0	Do not apply more than once per season. Do not graze or cut for forage within 21 days after application.
	5.0 (forage)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CARBOPHENOTHION

USE	TOLERANCE (ppm)	DOSAGE lbs. actual/A.	LIMITATIONS
Cotton	0.2 (in seed)	1.0	Do not graze dairy or meat animals in treated fields.
Crabapples	0.8	1.25	30 days.
Cranberries		1.0	Post-harvest application only.
Cucumbers	0.8	1.0	7 days.
Eggplants	0.8	1.0 (spray) 1.2 (dust)	7 days.
Figs	0.8	2.5	7 days.
Gooseberries		1.0	Post-harvest application only.
Grapes	0.8	0.5 (spray) 1.0 (dust)	30 days.
Nectarines	0.8	2.0 + 128.0 lbs. of oil in water	30 days.
Olives	0.8	9.0 + 288.0 lbs. of oil in water	60 days.
Onions	0.8 (dry or green)	2.0	Soil application only to furrow at planting time.
Peaches	0.8	2.0 + 128.0 lbs. of oil in water	30 days.
Pears	0.8	1.25	30 days.
Peas	0.8	0.75 (spray) 1.2 (dust)	7 days. Do not feed treated forage to livestock.
Pecans		2.5	Do not apply after husks open.
Peppers	0.8	1.0 (spray) 1.2 (dust)	7 days.

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CARBOPENOTHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pimientos	0.8	1.0 (spray) 1.2 (dust)	7 days.
Plums	0.8	2.0 + 128.0 lbs. of oil in water	30 days.
Potatoes (White)		1.0 (spray) 1.2 (dust)	No time limitations.
Prunes	0.8	2.0 + 128.0 lbs. of oil in water	30 days.
Quinces	0.8	1.25	30 days.
Raspberries		2.0	Postharvest application as a drench to the crown of plants.
Sorghum	2.0 (grain) 5.0 (forage)	1.0	Do not apply more than once per season. Do not graze or cut for forage within 21 days after application.
		0.5	Do not graze or cut for forage within 21 days after application. Do not apply more than twice per season.
Soybeans	0.8	0.75 (spray) 1.2 (dust)	7 days. Do not feed treated forage to livestock.
Spinach	0.8	0.5 (spray) 1.2 (dust)	21 days.
Squash Summer	0.8	1.0	7 days.
Strawberries	0.8	0.5 (spray) 1.2 (dust)	3 days.
Sugar beets	5.0 (on tops & roots)	1.0	14 days.

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CARBOPHENOTHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes	0.8	lbs. actual/A. 1.0 (spray) 1.2 (dust)	7 days.
Walnuts		2.0	Do not apply after husks open.
Watermelons	0.8	1.0 (spray) 1.2 (dust)	5 days.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

CDAA\*

PRINCIPAL FORMULATIONS: 47.7% and 85% emulsifiable concentrates; 20% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Beans (dry, lima, and snap)		4	Preemergence application.
Cabbage		4	Preemergence application to direct seeded crop.
		6	Apply as directed spray immediately after transplanting.
Celery (Florida only)		4	Apply 2-3 days after transplanting and again three weeks after transplanting.
Corn		5	Preemergence application.
Onions		6.0	Preemergence application to direct seeded crop just before onions emerge or soon after transplanting.
		6.0	Post-emergence application after three true leaves have developed. Do not apply on green onions. Do not apply within 45 days of harvest. or Post-emergence granular application after three true leaves have developed and repeat at weekly intervals. Do not apply to green onions. Do not apply granular formulations within 30 days of harvest.
Peas (canning)		4	Preemergence application.
Potatoes		4.0	Apply to freshly tilled soil immediately after last cultivation or hilling.
		3.0	Preemergence application immediately after planting. Use in combination with CDEC.

\*2-chloro-N,N-diallylacetamide; proprietary name: "Randox"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CDA

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Sorghum (grain and forage)		4.0	Preemergence application. Do not use on seed production fields.
Soybeans		5	Preemergence application.
Sugar cane		10	Apply immediately after planting or after regrowth has started and before weeds emerge. Make only one application per crop. Do not apply within 10 months of harvest.
Sweet Potatoes		4	Apply over-the-top spray immediately after setting of plants.
Tomatoes		6	Apply within two days after transplanting and before weeds emerge.
		3.0	Preemergence application to direct seeded crop immediately after seeding. Use in combination with three pounds per acre of CDEC.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

CDEC\*

PRINCIPAL FORMULATIONS: 20% granular; 46.4% and 49.93% emulsifiable concentrates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Beans:			
Field Lima Snap		6.0	Preemergence application. Incorporate into top 1-1.5 inches of soil.
Beets		6.0	Preemergence application.
Broccoli		8.0	Preplanting, preemergence, or just prior to setting plants in field, or Post-transplanting application immediately after transplanting and followed by irrigation.
Brussels Sprouts		6.0	Preemergence application or post-transplanting application as a directed spray immediately after transplanting and followed by irrigation.
		8.0	Preplanting or just prior to setting plants in field, or Post-transplanting application immediately after transplanting and followed by irrigation.
Cabbage		8.0	Preplanting, preemergence, or just prior to setting plants in field, or Post-transplanting application immediately after transplanting and followed by irrigation.
Cantaloupe		4.0	Preemergence application.
Cauliflower		8.0	Preplanting, preemergence, or just prior to setting plants in field, or Post-transplanting application

\*2-chloroallyl diethyldithiocarbamate

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CDEC

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Cauliflower (Cont.)		8.0	immediately after transplanting and followed by irrigation.
Celery		6.0	Post-transplanting. Do not apply later than 3 weeks after setting plants in field.
		8.0	Preplanting, or just prior to setting plants in fields.
Chicory		4.0	Preemergence application.
Collards		4.0	Preemergence application.
Corn			
Field		6.0	Preemergence application.
Pop			
Sweet			
Cucumber		4.0	Preemergence application immediately after seeding.
Endive		4.0	Preemergence application.
Escarole		4.0	Preemergence application.
Hanover Salad		4.0	Preemergence application.
Kale		4.0	Preemergence application.
Lettuce		6.0	Preemergence application.
		8.0	Preplanting, or just prior to setting plants in fields.
Mustard Greens		4.0	Preemergence application.
Okra		4.0	Preemergence application.
Potatoes		3.0	Preemergence application immediately after planting. Use in combination with CDAA, or

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CDEC

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Potatoes (Cont.)		3.0	Post-emergence application at time of last hilling. Use in combination with CDAA.
Soybeans		4.0	Preemergence application.
Spinach		4.0	Preemergence application. or Post-emergence on fall planted spinach for spring harvest. Apply after clean cultivation. Do not apply later than 30 days before harvest.
Tomatoes		4.0	Preemergence application.
		6.0	Post-transplanting; direct application followed by irrigation.
Turnips		4.0	Preemergence application.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORANIL\*

PRINCIPAL FORMULATIONS: 48%, 92%, and 96% wettable powders;  
5%, 10%, and 50% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beets		2 lbs. + 26 lbs. sulfur per acre	No time limitations.
Broccoli		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Brussels sprouts		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Cabbage		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Cantaloupe		2.42	No time limitations.
Celery		9.0	Plant bed soil treatment.
Collards		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Corn		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Cotton		2.0 oz./100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cowpeas		2.0 oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Flax		4.0 oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.

\*Tetrachloro-p-benzoquinone

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORANIL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Hops		1bs. actual/A.  2 lbs. + 26 lbs. sulfur per acre	No time limitations.
Lemons		2.4	No time limitations.
Lettuce		2 lbs. + 26 lbs. sulfur per acre	No time limitations.
		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Mustard		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Oats		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Peanuts		1.5 oz./100 lbs	Seed treatment. Do not use treated seed for food, feed, or oil.
Rice		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Sorghum		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Soybeans		2.0 oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Spinach		2 lbs. + 26 lbs. sulfur per acre	No time limitations.
		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORANIL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sweetpotatoes		lbs. actual/A. 1 lb./8 gals. water	Dip roots before bedding. Dip sprouts before planting.
Turnips		2.88	Plant bed treatment until all usable plants are drawn. Where crop is started from seed sown in the field, until plants are thinned to a stand.
Vegetables		6.0 oz./100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLORBENSIDE\*

PRINCIPAL FORMULATIONS: 40% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		4.0	Prebloom application only.
Apples	3.0	4.8	7 days.
Blackberries		0.8	Prebloom or post-harvest application only.
Boysenberries		0.8	Prebloom or post-harvest application only.
Crabapples	3.0	4.8	7 days.
Eggplants	3.0	0.8	7 days.
Grapes		1.25	Prebloom or post-harvest only.
Loganberries		0.8	Prebloom or post-harvest only.
Nectarines	3.0	3.2	7 days.
Peaches	3.0	3.2	7 days.
Pears	3.0	4.8	7 days.
Plums	3.0	3.2	7 days.
Prunes	3.0	3.2	7 days.
Quinces	3.0	4.8	7 days.
Raspberries		0.8	Prebloom or post-harvest only.
Walnuts		8.0	90 days.

\*p-Chlorobenzyl p-chlorophenyl sulfide



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLORDANE\*

**PRINCIPAL FORMULATIONS:** Emulsifiable concentrates containing 2, 4, or 6 lbs. per gallon; 40% wettable powder; 5%-10% dusts or granular formulations; 0.5%-2% fertilizer mixtures; 2%-3% pressurized sprays

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Alfalfa		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
		0.4 oz./colony	Ant mound treatment.
Apples	0.3	8.0	30 days.
Apricots	0.3	8.0	30 days.
Asparagus		0.5	Post-cutting use only.
Barley		3.0	Do not apply after heads begin to form. Do not graze treated fields. No restriction on use of grain.
Beans	0.3	2.0	Do not apply to green or snap beans after pods begin to form.
Beans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Beets	0.3	2.0	Do not apply after seedling stage if tops are to be used as food.
Blackberries	0.3	2.0	Apply before fruit starts to form or after harvest.
Blackeyed Peas	0.3	2.0	Do not apply after pods start to form.
Blackeyed Peas			
Seed		2.0 oz./bu.	Do not use as food or feed.
Blueberries	0.3	2.0	Apply before fruit starts to form or after harvest.

\* 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-4,7-methanoindane

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Broccoli	0.3	2.0	Do not apply after edible parts start to form.
Brussels Sprouts	0.3	2.0	Do not apply after edible parts start to form.
Bush & Vine Fruits:			
Blackberries	0.3	10.0	Preplanting soil application or when no fruit is present.
Blueberries	0.3		
Boysenberries		1.0	Wet or dry bait formulations.
Cranberries			
Currants			
Dewberries			
Gooseberries			
Grapes	0.3		
Huckleberries	0.3		
Loganberries	0.3		
Raspberries	0.3		
Strawberries	0.3		
Youngberries			
Cabbage	0.3	2.0	Do not apply after edible parts start to form.
Carrots	0.3	2.0	No time limitations.
Cauliflower		2.0	Do not apply after edible parts start to form.
Celery	0.3	2.0	Do not apply after plants are half grown or start to bunch.
Citrus Fruits:			
Grapefruit	0.3	10.0	14 days. Apply to trunk and larger branches and to outer foliage only at drip line.
Kumquats	0.3		
Lemons	0.3		
Limes	0.3		
Oranges	0.3	10.0	Soil treatment. Apply when no fruit is present.
Tangerines	0.3		
Tangeloes	0.3	1.0	Wet or dry bait formulations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Clover		lbs. Actual/A.	
		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. Do not apply to forage to be sold commercially or shipped interstate.
Collards	0.3	0.4 oz./colony	Ant mound treatment.
		2.0	Do not apply after edible parts start to form.
Corn	0.3	2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on the use of grain.
Corn			
Sweet		1.5	Apply primarily to silks. Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on the use of the corn as human food.
Corn			
Seed		2.0 oz./bu.	Do not use as food or feed.
Cotton		3.5	Do not apply after bolls open. Do not graze treated fields by dairy animals or animals being finished for slaughter.
Cotton			
Seed		2.0 oz./bu.	Do not use as food or feed.
Cowpeas		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Cowpeas			
Seed		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Cucurbits	0.3	2.5	Dust or spray. Do not apply after edible parts start to form. May be injurious to some varieties.
Deciduous Fruits & Nuts:			
Almonds		10.0	Soil application when no fruit is present.
Apples	0.3		
Apricots	0.3		
Cashews		1.0	Wet or dry bait formulations.
Cherries	0.3		
Chestnuts			
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory Nuts			
Nectarines	0.3		
Olives			
Peaches	0.3		
Pears	0.3		
Pecans			
Persimmons			
Plums	0.3		
Pomegranate			
Prunes	0.3		
Quinces	0.3		
Walnuts			
Eggplants	0.3	2.0	Dust or spray. Do not apply after edible parts start to form.
Field, Fiber, and Forage Crops:			
Alfalfa		10.0	Preplanting soil application.
Barley			
Birdsfoot		1.0	Wet or dry bait formulations.
Trefoil			
Buckwheat			
Clover			
Corn			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Field, Fiber, and Forage Crops: (Cont.)			
Cotton		10.0	Preplanting soil application.
Flax			
Grasses		1.0	Wet or dry bait formulations.
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts	0.3		
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugarbeets			
Sugarcane			
Vetch			
Wheat			
Flax		3.0	Do not apply after blossoms appear. Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on the use of the oil.
Grapes	0.3	4.0	Do not apply after edible parts start to form.
Grain Crops:			
Barley		10.0	Preplanting soil application.
Corn	0.3		
Cats		1.0	Wet or dry bait formulations.
Rice			
Rye			
Sorghum			
(Grain)			
Wheat			

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grass			
Pasture Range		3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Huckleberries		2.0	Do not apply when fruit is present.
Kale	0.3	2.0	Do not apply after edible parts start to form.
Kohlrabi	0.3	2.0	Do not apply after edible parts start to form.
Lettuce	0.3	2.0	Do not apply after edible parts start to form.
Nectarines	0.3	8.0	30 days.
Oats		3.0	Do not apply after heads start to form. Do not graze treated forage. No restriction on use of grain.
Oats			
Seed		2.0 oz./bu.	Do not use as food or feed.
Okra	0.3	2.0	Do not apply after edible parts start to form.
Onions	0.3	2.0	Do not apply to spring or green onions.
Papayas	0.3	8.0	30 days.
Peaches	0.3	8.0	30 days.
Pears	0.3	8.0	30 days.
Peas	0.3	1.5	15 days. Do not feed treated forage to dairy animals or animals being finished for slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Peas			
Seed		2.0 oz./bu.	Do not use as food or feed.
Peppers	0.3	2.0	Do not apply after edible parts start to form.
Pineapple	0.3	2.0	Do not feed bran or husks to livestock.
Plums	0.3	8.0	30 days.
Potatoes	0.3	1.5	No time limitations.
		10.0	Preplanting broadcast soil application, or at time of planting.
		3.0	30 days. Post-emergence band soil application.
		1.0	Wet or dry bait application.
Quinces	0.3	8.0	30 days.
Radishes	0.3	2.0	Do not apply after edible parts start to form.
Raspberries	0.3	2.0	Apply only before fruit starts to form or after harvest.
Rice		3.0	Do not apply after heads start to form. Do not graze treated forage. No restriction on use of grain.
Rice			
Seed		2.0 oz./bu.	Do not use as food or feed.
Rutabagas	0.3	2.0	Do not apply later than 2 weeks after seedlings emerge.
Rye		3.0	Do not apply after heads start to form. Do not graze treated forage. No restriction on use of grain.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Rye			
Seed		2.0 oz./bu.	Do not use as food or feed.
Sorghum			
Seed		2.0 oz./bu.	Do not use as food or feed.
Soybeans		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restrictions on use of thrashed beans.
Soybeans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Strawberries	0.3	2.0	Do not apply after fruit begins to form.
Tomatoes	0.3	5.0	Do not apply after fruit begins to form.
Tropical fruits:			
Avocados		10.0	Soil application when no fruit is present.
Bananas			
Guavas			
Mangoes		1.0	Wet or dry bait formulations.
Papayas	0.3		
Passion fruit			
Turnips	0.3	2.0	Do not apply after edible parts begin to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Vegetables:			
Asparagus		10.0	Preplanting soil application or at time of planting or transplanting.
Beans	0.3		
Beets	0.3		
Blackeyed Peas	0.3	1.0	Wet or dry bait formulations. Do not contaminate edible parts.
Broccoli	0.3		
Brussels Sprouts	0.3		
Cabbage	0.3		
Cantaloupes	0.3		
Carrots	0.3		
Cauliflower	0.3		
Celery	0.3		
Collards	0.3		
Corn	0.3		
Cowpeas	0.3		
Cucumbers	0.3		
Eggplants	0.3		
Endive			
Garlic			
Horseradish			
Kale	0.3		
Kohlrabi	0.3		
Leeks			
Lettuce	0.3		
Melons	0.3		
Mustard Greens			
Okra	0.3		
Onions	0.3		
Parsnips			
Peas	0.3		
Peppers	0.3		
Pimentos	0.3		
Pumpkins			
Radishes	0.3		
Rutabagas	0.3		
Salsify			
Shallots			
Spinach			
Squash (Summer)	0.3		
Squash (Winter)			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. Actual/A.	
Sweet Potatoes	0.3	10.0	Preplanting soil application or at time of planting or transplanting.
Swiss Chard			
Tomatoes	0.3		
Turnips	0.3	1.0	Wet or dry bait formulations. Do not contaminate edible parts.
Watermelons	0.3		
Velvet Beans		2.0	Do not feed treated vines and pods to dairy animals or animals being finished for slaughter.
Vetch		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Wheat		3.0	Do not apply after heads start to form. Do not graze treated forage. No restriction on use of grain.
Wheat			
Seed		2.0 oz./bu.	Do not use as food or feed.
Agricultural Premises:			
Animal Pens		3.0% in oil or water	Use as a residual surface spray. Do not apply to feedstuffs. Do not contaminate feed or drinking water.
Barns			
Doxes			
Cartons			
Empty Storage Bins		6.0%	Dust. Thorough application to interior and exterior surfaces. Do not apply to feedstuffs. Do not contaminate feed or drinking water.
Sacks			
Storage Crates (excluding dairy barns and poultry houses)			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CHLORDANE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Outdoor Treatment:		lbs. Actual/A.	
Ditch Banks		1.5	Dust or spray. Do not contaminate food or feed crops.
Field Borders			
Roadsides		1.0	Apply by fogging machine. Do not contaminate food or feed crops.
Vacant Land		3.0	Soil application. Do not feed forage to dairy animals or animals being finished for slaughter.
Ant Mounds		0.5% in water	Thoroughly saturate mounds. (As much as 5 gallons for large colonies.) Do not contaminate food or feed crops.
		1.5	Dust. Apply thoroughly to mounds. Do not contaminate food or feed crops.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-CHLORO-1-(2,4-DICHLOROPHENYL) VINYL DIETHYL PHOSPHATE

PRINCIPAL FORMULATIONS: 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn  Field		lbs. actual/A.	
		2.0	Soil application to furrow at time of planting.
		1.0	Band soil application at time of last cultivation.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLOROBENZILATE\*

**PRINCIPAL FORMULATIONS:** 25% emulsifiable concentrate; 25% wettable powder;  
4% dust; 10% pressurized spray

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Almonds		3.0	21 days.
Apples	5	5.0	14 days.
Cantaloupes	5	1.6	No time limitations.
Cherries		4.0	Post-harvest application only.
Cotton		1.0	Do not apply after bolls open. Do not graze livestock in treated fields. Do not feed gin waste to livestock.
Grapefruits	5	2.5	No time limitations.
Lemons	5	7.5	No time limitations.
Oranges	5	5.0	No time limitations.
Peaches		1.5	30 days.
Pears	5	5.0	7 days.
Tangerines	5	2.5	No time limitations.
Walnuts		5.0	Do not apply after husks begin to split.

\*Ethyl 4,4'-dichlorobenzilate

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-CHLORO-4,6-BIS(ISOPROPYLAMINO)-s-TRIAZINE\*

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sorghum (Milo)		lbs. actual/A.  2.0	Apply at time of planting or immediately after and before weeds or sorghum (milo) have emerged. Do not plant treated fields to crops other than sorghum (milo) within 18 months following treatment. Do not graze or feed forage from treated fields to livestock.

\*Proprietary name: "Propazine"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLOROFORM

**PRINCIPAL FORMULATIONS:** Fumigant mixture containing 73.2% chloroform and 26.8% carbon disulfide

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Commodity Fumigation			
Grain:			
Barley	Exempt	8.0 gals./ 1000 bu.	Apply to grain in storage. No time limitations.
Corn	Exempt		
Oats	Exempt		
Popcorn	Exempt		
Rice	Exempt		
Rye	Exempt		
Sorghum	Exempt		
Wheat	Exempt		
Animals:			
Beef Cattle		50.0% screw-worm treatment	Formulated with other ingredients. Apply locally to wounds, cuts, scratches, etc. Repeat as necessary until wounds heal. Apply in and around ears for tick control.
Dairy Cattle			
Goats			
Sheep			
Swine			

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLOROMETHOXYPROPYLMERCURIC ACETATE

PRINCIPAL FORMULATIONS: 3.6% liquid mix; 9.6% concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		fl.oz.act./bu.	
Oats		0.027	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		0.027	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-(3-CHLORO-4-METHYLPHENYL) 2-METHYLPANTANAMIDE

PRINCIPAL FORMULATIONS: 46% emulsion concentrate containing 4 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		lbs. actual/A.  4.0	Preemergence application 2-3 days before crop emerges. or 30 days post-emergence application when crop is 6 or more inches tall. or 30 days post-transplanting application 2 or more weeks after setting.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 1-CHLORO-2-NITROPROPANE

PRINCIPAL FORMULATIONS: 44.55% emulsifiable concentrate containing 4 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 2.0	Soil application at time of planting.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 2-(3-CHLOROPHENOXY)-PROPIONIC ACID

PRINCIPAL FORMULATIONS: 8.33% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Plum (Duarte)		grams acid equiv./A.  57 grams/A. in 50 ppm spray	Chemical thinning. Apply 7-14 days after full bloom.
Prune (French)		57 grams/A. in 50 ppm spray	Chemical thinning. Apply 7-14 days after full bloom.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

p-CHLOROPHENYL BENZENE SULFONATE\*

PRINCIPAL FORMULATIONS: 50% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A	
Apples		4.0	Single application at pink or pre-pink stage.
Peaches		4.0	Apply during prebloom season only.
Pears		4.0	Single application at pink or pre-pink stage.

\*Proprietary Name: "Fenson"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

3-(p-CHLOROPHENYL)-1,1-DIMETHYLUREA TRICHLOROACETATE\*

PRINCIPAL FORMULATIONS: 11% and 22% granular formulations

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Citrus Groves</p> <p>Grapefruit Kumquats Lemons Limes Oranges Tangerines Tangeloes</p>		<p>lbs. Actual/A</p> <p>44</p>	<p>Apply to drainage ditch bottoms only, when not in use. Drain and waste water before using ditch. Do not contaminate domestic water supplies, farm ponds, or water used by livestock.</p>

\*Monuron TCA

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## p-CHLOROPHENYL PHENYL SULFONE\*

**PRINCIPAL FORMULATIONS:** 50% wettable powder; 10% to 20% dusts; emulsifiable concentrates containing 4 lbs. of actual ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		12.0	14 days. Do not feed treated hulls to livestock.
Apples	8	18.0	7 days.
Peaches	8	12.0	14 days.
Pears	8	18.0	7 days.
Animals:			
Poultry		1.25% in water	Apply one gallon spray per 35 mature birds.
		50.0% W.P.	Apply 1 teaspoonful per bird and rub into feathers.

\*Proprietary name: "Sulphenone"

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLOROPICRIN\*

PRINCIPAL FORMULATIONS: 99% technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Any Crop: (including greenhouse, nursery and outside beds)		1021 lbs. actual/A.	Preplanting soil fumigation only. Aerate for 7-14 days prior to planting.
Commodity Fumigation:			
Beans		3.0 lbs./ 1000 cu.ft.	Expose to fumigation for 24-36 hours. No limitation to number of treatments.
Cowpeas		3.0 lbs./ 1000 cu.ft.	Expose to fumigation for 24-36 hours. No limitation to number of treatments.
Peas		3.0 lbs./ 1000 cu.ft.	Expose to fumigation for 24-36 hours. No limitation to number of treatments.
Nuts		8.6 gms./ 1000 cu.ft.	Expose to fumigation for 24 hours or longer. Used in combination with other fumigants.
Stored Grain			
Barley	Exempt	6.0 lbs./	Expose to fumigation for 24 hours or
Buckwheat	Exempt	1000 bu.	longer. No limit to number of treatments.
Corn	Exempt		No aeration period needed. Avoid
Oats	Exempt		fumigation if (1) grain moisture is
Rice	Exempt		high, (2) grain temperature is below
Rye	Exempt		60°F., or (3) there is excessive dockage.
Sorghum (grain)	Exempt		
Wheat	Exempt		

\*Trichloronitromethane

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CHLORTETRACYCLINE\*

**PRINCIPAL FORMULATIONS:** Soluble powders containing 10% and 16.5% chlortetracycline hydrochloride

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Freshly-killed uncooked poultry	7	30 ppm in the chilling bath	Use only on poultry that is to be cooked.
Fresh-caught fish (whole, headed or gutted), unpeeled shrimp, and shucked scallops	5	Store in ice (block or chip) containing 5 ppm CTC	No time limitations.
Fresh-caught fish (whole, headed or gutted)	5	25 ppm dip solution	Do not immerse more than 1 minute. Do not treat more than 400 lb. fish per 10 gals. solution.
Shucked scallops	5	10 ppm dip solution	Do not immerse more than 1 minute.

\*Proprietary name: "Acronize PD"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COAL TAR NEUTRAL OILS AND COAL TAR ACID COMBINATION

**PRINCIPAL FORMULATIONS:** Technical material; 2% and 5% dusts; 93.75% paint

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:			
Beef Cattle		2.0% Coal Tar Neutral Oils + 0.4% Coal Tar Acids	Dip or spray. Apply thoroughly, making sure animal is wet to skin. Do not treat dairy animals.
Dairy Cattle		2.0% Coal Tar Neutral Oils + 0.4% Coal Tar Acids	Dust. Apply liberally and work dust into hair by rubbing or brushing. Do not treat dairy animals.
Goats & Sheep		5.0% Coal Tar Neutral Oils	Dust. Formulated with other ingredients. Apply liberally and work dust into hair by rubbing or brushing. Do not treat dairy animals.
Swine		65.0% Coal Tar Neutral Oils + 7.0% Coal Tar Acids	Screw-worm smear formulation. Apply liberally as a spot treatment to prevent screw-worm infestation.
		0.5% Coal Tar Acids in Oil	Apply directly to hogs by spraying or sprinkling. Can be applied as a spot treatment by brushing.
		0.5% Coal Tar Acids in Oil	Apply as a spot treatment to cattle for mange control. Do not treat large areas of the body.
		93.75% paint	Apply as a wound dressing after dehorning, castrating, or other minor wounds.
Poultry		0.5% Coal Tar Acids in Oil	Dip shanks and feet of birds. Do not dip feathers.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COAL TAR NEUTRAL OILS AND COAL TAR ACID COMBINATION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:			
Poultry Houses		45.0% Coal Tar Neutral Oils + 5.0% Coal Tar Acids	Apply to roosts, nests, etc. as a paint. Old nesting material and litter should be replaced.
Special Mosquito Larvacide		58.0% Coal Tar Neutral Oils + 15.0% Coal Tar Acids	Apply to surface of standing water at the rate of 1 part to 5,000 parts water.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER (Ammoniacal)

PRINCIPAL FORMULATIONS: 3.25% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		0.4	No time limitations.
Beans		0.3	No time limitations.
Cantaloupes		0.4	No time limitations.
Carrots		0.4	No time limitations.
Citrus		0.4	No time limitations.
Cucumbers		0.6	No time limitations.
Currants		0.3	No time limitations.
Gooseberries		0.4	No time limitations.
Grapes		0.3	No time limitations.
Melons		0.4	No time limitations.
Peaches		0.4	No time limitations.
Pears		0.4	No time limitations.
Peas		0.3	No time limitations.
Quinces		0.4	No time limitations.
Squash		0.4	No time limitations.
Tomatoes		0.3	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER ARSENATE

PRINCIPAL FORMULATIONS: Customarily marketed as 91% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined As <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Almonds		32.0	Do not apply after petal fall.
Apricots		64.0	Do not apply after petal fall.
Beans (dried)		15.0	No time limitations.
Beans (green or snap)		15.0	Do not apply after edible parts start to form. Do not feed any treated plant parts to livestock.
Broccoli		8.0	Do not apply after edible parts start to form.
Brussel sprouts	3.5	8.0	Do not apply after edible parts start to form.
Cabbage	3.5	8.0	Do not apply after edible parts start to form.
Carrots	3.5	8.0	No time limitations.
Cauliflower	3.5	8.0	Do not apply after curd starts to form.
Celery		9.0	No time limitations.
Cucumbers		7.3	No time limitations.
Cucurbits		7.0	No time limitations.
Grapefruit		4.6	Apply 1-3 weeks after bloom. Treatment may be repeated in summer scabicide sprays.
Kohlrabi	3.5	8.0	Do not apply after edible parts start to form.
Pears		18.0	Do not apply after petal fall.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER ARSENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as combined $AS_2O_3$ )	lbs. actual/A.	
Potatoes (foliage)		25.0	No time limitations.
Tomatoes	3.5	15.0	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER - BASIC COPPER SULFATE AND CHLORIDES

**PRINCIPAL FORMULATIONS:** 50% wettable powder; 6%, 7%, and 10% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	3.0	Preblossom to petal fall.
Apples	Exempt	3.5	No time limitations.
Apricots	Exempt	3.0	Preblossom to petal fall.
Beans	Exempt	2.4	No time limitations.
Broccoli	Exempt	1.8	No time limitations.
Brussels sprouts	Exempt	1.8	No time limitations.
Cabbage	Exempt	1.8	No time limitations.
Cantaloupe	Exempt	2.1	No time limitations.
Carrot	Exempt	2.0	No time limitations.
Cauliflower	Exempt	2.0	No time limitations.
Celery	Exempt	2.4	No time limitations.
Cherries	Exempt	3.0	No time limitations.
Citrus:			
Grapefruit	Exempt	2.5	Do not apply after fruit is 3/4" in diameter.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Cucumbers	Exempt	3.0	No time limitations.
Cucurbits	Exempt	3.0	No time limitations.
Filberts	Exempt	3.0	No time limitations.
Grapes	Exempt	3.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER - BASIC COPPER SULFATE AND CHLORIDES

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Hops	Exempt	2.3	Early spring application.
Lettuce	Exempt	3.5	No time limitations.
Melons	Exempt	3.5	No time limitations.
Nectarines	Exempt	3.0	Prebloom to petal fall.
Onions	Exempt	3.5	No time limitations.
Peaches	Exempt	3.0	Preblossom to petal fall.
Pears	Exempt	2.8	No time limitations.
Potatoes	Exempt	2.4	No time limitations.
Spinach	Exempt	3.5	No time limitations.
Squash	Exempt	2.5	No time limitations.
Strawberries	Exempt	3.5	No time limitations.
Sugar Beets	Exempt	2.5	No time limitations.
Tomatoes	Exempt	3.0	No time limitations.
Walnuts	Exempt	3.0	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER CARBONATE

**PRINCIPAL FORMULATIONS:** 20% and 50% powders; 1.3% impregnated wraps

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	Exempt	1.3	Full bloom to late bloom stage.
Apricots	Exempt	12.3	Dormant application only.
Cherries	Exempt	0.5	Popcorn to petal fall.
Citrus:			
Grapefruit	Exempt	3.7	Late fall application.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Nectarines	Exempt	12.3	Dormant application only.
Olives	Exempt	2.0	Late fall application.
Peaches	Exempt	12.3	Dormant application only.
Pears	3	1.3% impregnated wraps	Post-harvest use of one 9" x 9" impregnated wrap per fruit.
Sorghum	Exempt	2 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Walnuts	Exempt	1.6	Prebloom and bloom stage.
Wheat	Exempt	2 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER CHLORIDE

PRINCIPAL FORMULATIONS: 5% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Potatoes		2.0	No time limitations.
Tomatoes		2.5	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER HYDROXIDE

PRINCIPAL FORMULATIONS: 92% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas	Exempt	lbs. actual/A. 3.0	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER LIME MIXTURES

PRINCIPAL FORMULATIONS: Copper, as metallic  
 3.0% 6.0% 8.75%  
 5.2% 7.0%

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	2.8	No time limitations.
Apples	Exempt	3.0	No time limitations.
Apricots	Exempt	2.8	No time limitations.
Beets	Exempt	2.8	No time limitations.
Blueberries	Exempt	2.8	No time limitations.
Broccoli	Exempt	2.8	No time limitations.
Cabbage	Exempt	2.8	No time limitations.
Carrots	Exempt	2.8	No time limitations.
Cauliflower	Exempt	2.8	No time limitations.
Celery	Exempt	2.8	No time limitations.
Cherries	Exempt	2.8	No time limitations.
Citrus:			
Grapefruit	Exempt	3.0	No time limitations.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Cucumbers	Exempt	2.8	No time limitations.
Cucurbits	Exempt	2.8	No time limitations.
Eggplant	Exempt	2.8	No time limitations.
Grapes	Exempt	3.0	No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER LIME MIXTURES

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Melons	Exempt	2.8	No time limitations.
Nectarines	Exempt	2.8	No time limitations.
Peaches	Exempt	2.8	No time limitations.
Pears	Exempt	2.8	No time limitations.
Peppers	Exempt	2.8	No time limitations.
Pimentoes	Exempt	2.8	No time limitations.
Potatoes	Exempt	2.8	No time limitations.
Squash	Exempt	2.8	No time limitations.
Strawberries	Exempt	2.8	No time limitations.
Tomatoes	Exempt	2.8	No time limitations.
Walnuts	Exempt	2.8	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER NAPHTHENATE

PRINCIPAL FORMULATIONS: 2.0% solution (as metallic copper)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field Boxes (for fruits and vege- tables)		2.0% solution	Dip for 1/2 minute or apply with brush or spray.
Empty bee hives		2.0% solution	Dip for 1/2 minute or apply with brush or spray.

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER OLEATE

PRINCIPAL FORMULATIONS: 2%, 4%, 10%, 15%, 20%, and 25% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	5.8	Apply before husks open. Do not feed husks to livestock.
Apples	Exempt	3.6	Dormant to petal fall only.
Apricots	Exempt	3.6	Delayed dormant to petal fall.
Beans	Exempt	1.1	No time limitations.
Cabbage	Exempt	1.1	No time limitations.
Cantaloupe	Exempt	1.5	No time limitations.
Celery	Exempt	1.5	No time limitations.
Cherries	Exempt	3.6	No time limitations.
Citrus:		3.6	Apply to lower part of tree during winter months. Do not apply when fruit is present.
Grapefruit	Exempt		
Lemons	Exempt		
Oranges	Exempt		
Cole Crops	Exempt	1.1	No time limitations.
Cucumbers	Exempt	1.5	No time limitations.
Cucurbits	Exempt	1.5	No time limitations.
Grapes	Exempt	1.8	Apply when new growth is 1" long and after grapes are set.
Melons	Exempt	1.5	No time limitations.
Nectarines	Exempt	3.6	Dormant application only.
Onions	Exempt	1.1	No time limitations.
Peach	Exempt	3.6	Dormant to pop corn stage.

(Cont'd)

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER OLEATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pears	Exempt	3.6	Delayed dormant to petal fall.
Peas	Exempt	1.5	7 days.
Peppers	Exempt	1.5	No time limitations.
Plums	Exempt	3.6	Delayed dormant to petal fall.
Prunes	Exempt	3.6	Delayed dormant to petal fall.
Pumpkins	Exempt	1.5	No time limitations.
Raspberries	Exempt	1.8	No time limitations.
Squash	Exempt	1.5	No time limitations.
Strawberries	Exempt	1.8	No time limitations.
Tomatoes	Exempt	1.8	No time limitations.
Walnuts	Exempt	7.2	Apply before husks open.
Youngberries	Exempt	1.8	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER OXYCHLORIDE

PRINCIPAL FORMULATIONS: 50% wettable powder; 7%, 10%, and 25% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables:			
Asparagus	Exempt	3.0	No time limitations.
Beans	Exempt		
Beets	Exempt		
Blackeyed Peas	Exempt		
Broccoli	Exempt		
Brussels Sprouts	Exempt		
Cabbage	Exempt		
Cantaloupes	Exempt		
Carrots	Exempt		
Cauliflower	Exempt		
Celery	Exempt		
Collards	Exempt		
Corn	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Eggplants	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		
Kohlrabi	Exempt		
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Mustard Greens	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peas	Exempt		
Peppers	Exempt		
Pimentoes	Exempt		
Potatoes	Exempt		
Pumpkins	Exempt		
Radishes	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER OXYCHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (cont.)		lbs. actual/A.	
Squash (summer)	Exempt	3.0	No time limitations.
Squash (winter)	Exempt		
Sweet Potatoes	Exempt		
Swiss Chard	Exempt		
Tomatoes	Exempt		
Turnips	Exempt		
Watermelons	Exempt		
Spinach	Exempt	3.5	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER OXYCHLORIDE SULFATE\*

**PRINCIPAL FORMULATIONS:** 18.13%, 26.5%, 31.0%, 34.0%, 50.0% and 55.0% wettable powders  
3.0%, 6.0%, 7.0% and 10.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	16.5 3.0	Dormant. Petal fall.
Apples	Exempt	3.5	No time limitations.
Apricots	Exempt	16.5 3.0	Dormant. Petal fall.
Beets:			
Sugar Table	Exempt	3.5	No time limitations.
Blackberries	Exempt	3.1	No time limitations.
Broccoli	Exempt	1.8	No time limitations.
Brussels Sprouts	Exempt	1.8	No time limitations.
Cabbage	Exempt	1.8	No time limitations.
Cantaloupe	Exempt	3.0	No time limitations.
Carrots	Exempt	3.3	No time limitations.
Cauliflower	Exempt	2.0	No time limitations.
Celery	Exempt	4.4	No time limitations.
Cherries	Exempt	13.75	No time limitations.
Citrus:			
Grapefruit	Exempt	8.25	4 weeks after petal fall.
Kumquats	Exempt	2.5	Do not apply after fruit is 3/4" in diameter.
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangeloes	Exempt		
Tangerines	Exempt		

\*Simple mixture of basic copper chlorides and sulphates

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER OXYCHLORIDE SULFATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cucumbers	Exempt	3.0	No time limitations.
Cucurbits	Exempt	3.0	No time limitations.
Currants	Exempt	3.5	No time limitations.
Eggplants	Exempt	3.5	No time limitations.
Filberts	Exempt	3.0	No time limitations.
Garlic	Exempt	2.1	No time limitations.
Grapes	Exempt	3.5	No time limitations.
Hops	Exempt	2.3	No time limitations.
Lettuce	Exempt	3.5	No time limitations.
Melons	Exempt	3.0	No time limitations.
Nectarines	Exempt	13.75 3.0	Delayed dormant. Petal fall.
Onions	Exempt	3.5	No time limitations.
Peaches	Exempt	16.5 3.0	Dormant application only. Petal fall.
Pears	Exempt	3.6	No time limitations.
Peppers	Exempt	3.5	No time limitations.
Plums	Exempt	2.2	Blossom application only.
Potato	Exempt	5.5	No time limitations.
Pumpkin	Exempt	3.0	No time limitations.
Raspberries	Exempt	3.1	No time limitations.
Spinach	Exempt	3.5	No time limitations.
Squash	Exempt	3.0	No time limitations.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER OXYCHLORIDE SULFATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Strawberries	Exempt	3.5	No time limitations.
Tomato	Exempt	5.5	No time limitations.
Vegetable Seed Beds	Exempt	5.5	Apply to seed and plant beds before transplanting.
Walnuts	Exempt	8.2 3.0	Blossom application only. No time limitations.
Watermelons	Exempt	3.0	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER POTASSIUM SULFIDE

**PRINCIPAL FORMULATIONS:** Copper 8% plus Potassium polysulfide 5.4% plus Potassium thiosulfate 3.95%

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		tbs./gal.	
Apples		3	Soil application only.
Cabbage		3	Soak transplants 1-2 hours before transplanting.
Peaches		3	Soil application only.
Pears		3	Soil application only.
Pecans		3	Soil application only.
Strawberries		3	Soak transplants 1-2 hours before transplanting.
Tomatoes		3	Soak transplants 1-2 hours before transplanting.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER 8 - QUINOLINATE

PRINCIPAL FORMULATIONS: 5% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Hampers		1 gal./3 gals. oil	Dip for 3-10 seconds.
Harvesting Bins		1 gal./3 gals. oil	Dip for 3-10 seconds.
Picking Boxes		1 gal./3 gals. oil	Dip for 3-10 seconds.
Wooden food handling equipment		1 gal./3 gals. oil	Brush or spray application.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER RESINATE (20%) PLUS PHENYL MERCURY SALICYLATE (2%)

PRINCIPAL FORMULATIONS: Mixture of technical materials with inert diluents

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Wheat		0.5 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER SALTS OF FATTY AND ROSIN ACIDS

**PRINCIPAL FORMULATIONS:** 48% liquid containing 4% copper. A mixture of copper oleate, copper linoleate, and copper abietate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cantaloupes	Exempt	1/2 gal./A.	No time limitation.
Carrots	Exempt	3 qts./A.	No time limitations. North Central states only.
Citrus (all)	Exempt	2 gals./A.	Aircraft application 3 weeks after petal fall.
		10 gals./A.	Ground equipment application 3 weeks after petal fall.
Cucumbers	Exempt	1/2 gal./A.	No time limitation.
Peanuts	Exempt	1 gal./A.	No time limitation.
Peppers	Exempt	3 qts./A.	No time limitations. North Central states only.
Pumpkins	Exempt	1/2 gal./A.	No time limitation.
Squash	Exempt	1/2 gal./A.	No time limitation.
Tomatoes	Exempt	1.0 oz. of 20% aerosol/ 3000 cu.ft.	Fog application. No time limitations.
Watermelon	Exempt	1/2 gal./A.	No time limitation.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER SULFATE (Basic)

**PRINCIPAL FORMULATIONS:** 12.75%; 13.0%; 19.0%; 26.0%; 34.0%; 35.0%; 53.0% wettable powders  
6.0%; 6.5%; 7.0%; 8.0% and 26.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	21.5	Swelling bud and popcorn stage.
Apples	Exempt	6.4	No time limitations.
Apricots	Exempt	13.5	Red bud or prejacket sprays.
		2.6	No time limitations.
Avocados	Exempt	16.0	140 days after bloom.
Beans	Exempt	3.2	No time limitations.
Beets	Exempt	4.8	No time limitations.
Blackberries	Exempt	2.5	No time limitations.
Blueberries	Exempt	1.4	May be applied close to harvest.
Boysenberries	Exempt	1.4	May be applied close to harvest.
Brambles	Exempt	2.6	No time limitations.
Broccoli	Exempt	4.8	No time limitations.
Brussels Sprouts	Exempt	3.5	No time limitations.
Cabbage	Exempt	5.2	No time limitations.
Cantaloupe	Exempt	5.3	No time limitations.
Carrots	Exempt	4.0	No time limitations.
Cauliflower	Exempt	3.5	No time limitations.
Celery	Exempt	5.2	No time limitations.
Cherries	Exempt	5.1	No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Basic)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Citrus:			
Grapefruit	Exempt	5.1	Apply just before spring growth starts and repeat when fruit is about marble size.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt	4.0	No time limitations.
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Cole Crops	Exempt	3.2	No time limitations.
Cranberries	Exempt	1.4	May be applied close to harvest.
Cucumbers	Exempt	5.3	No time limitations.
Cucurbits	Exempt	5.3	No time limitations.
Currants	Exempt	2.6	No time limitations.
Dewberries	Exempt	1.4	May be applied close to harvest.
Eggplants	Exempt	5.2	No time limitations.
Endive	Exempt	1.7	No time limitations.
Garlic	Exempt	1.5	No time limitations.
Gooseberries	Exempt	2.6	No time limitations.
Grapes	Exempt	3.3	No time limitations.
Hops	Exempt	5.2	No time limitations.
Huckleberries	Exempt	1.4	May be applied close to harvest.
Lettuce	Exempt	3.2	No time limitations.
Loganberries	Exempt	1.4	May be applied close to harvest.
Loquats	Exempt	8.0	No time limitations.
Mangoes	Exempt	8.0	84 days after bloom.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Basic)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Melons	Exempt	5.3	No time limitations.
Mint	Exempt	2.8	No time limitations.
Nectarines	Exempt	13.5	November 15-30. In spring before buds swell. In full pink.
Onions	Exempt	5.2	No time limitations.
Papayas	Exempt	8.0	No time limitations.
Peaches	Exempt	13.5	November 15-30. In spring before buds swell. In full pink.
		2.6	No time limitations.
Peanuts	Exempt	6.4	No time limitations.
Pears	Exempt	8.0	No time limitations.
Peas	Exempt	5.2	No time limitations.
Pecans	Exempt	20.0	No time limitations.
Peppers	Exempt	5.2	No time limitations.
Plums	Exempt	6.4	Green bud stage and popcorn stage.
Potatoes	Exempt	6.4	No time limitations.
Prunes	Exempt	6.4	Green bud stage and popcorn stage.
		2.6	No time limitations.
Radishes	Exempt	3.2	No time limitations.
Raspberries	Exempt	1.0	No time limitations.
Rice	Exempt	15.0	Apply as needed after field has been flooded.
Soybeans	Exempt	5.2	No time limitations.
Spinach	Exempt	3.2	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

COPPER SULFATE (Basic)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Squash	Exempt	5.3	No time limitations.
Strawberries	Exempt	4.0	No time limitations.
Sugar Beets	Exempt	6.4	No time limitations.
Tomatoes	Exempt	6.4	No time limitations.
Walnuts	Exempt	26.8	No time limitations.
Watermelons	Exempt	5.3	No time limitations.
Wheat		2.1 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Youngberries	Exempt	1.4	May be applied close to harvest.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER SULFATE (Pentahydrate)

PRINCIPAL FORMULATIONS: 50% wettable powder; 99% crystals

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bananas	Exempt	25.0	No time limitations.
Cranberries	Exempt	20.0	Apply between August 1-10 in 400 gals. water per acre. Berries may be speckled by treatment.
Tomatoes	Exempt	25.0	No time limitations.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**COPPER-TETRA COPPER CALCIUM OXYCHLORIDE**

**PRINCIPAL FORMULATIONS:** 45% wettable powders; 10% and 15% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	22.0	Apply as a dormant spray in the fall and before buds break in spring.
Apples	Exempt	22.5	No time limitations.
Apricots	Exempt	22.0	Apply as a dormant spray in the fall and before buds break in spring.
		12.3	Apply during bloom period only.
Beets	Exempt	2.4	No time limitations.
Cantaloupes	Exempt	7.2	No time limitations.
Carrots	Exempt	2.1	No time limitations.
Celery	Exempt	2.4	No time limitations.
Cherries	Exempt	4.5	No time limitations.
Citrus:			
Grapefruit	Exempt	4.5	No time limitations.
Oranges	Exempt		
Tangerines	Exempt		
Cucumbers	Exempt	7.2	No time limitations.
Cucurbits	Exempt	7.2	No time limitations.
Eggplant	Exempt	3.8	No time limitations.
Grapes	Exempt	2.4	No time limitations.
Hops	Exempt	2.3	No time limitations.
Muskmelons	Exempt	7.2	No time limitations.
Nectarines	Exempt	1.0	Dormant and bloom applications only.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**COPPER-TETRA COPPER CALCIUM OXYCHLORIDE**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Parsnips	Exempt	2.7	No time limitations.
Peaches	Exempt	22.0	Apply as a dormant spray in the fall and before buds break in spring.
		12.3	Apply during bloom period only.
Peanuts	Exempt	1.2	No time limitations.
Pears	Exempt	22.5	No time limitations.
Peppers	Exempt	2.5	No time limitations.
Plums	Exempt	12.3	Apply during bloom period only.
Potatoes	Exempt	2.5	No time limitations.
Prunes	Exempt	12.3	Apply during bloom period only.
Squash	Exempt	7.2	No time limitations.
Strawberries	Exempt	2.4	No time limitations.
Sugar Beets	Exempt	2.4	No time limitations.
Tomatoes	Exempt	2.3	No time limitations.
Walnuts	Exempt	12.0	Early prebloom applications, 3-6 treatments at 7-day intervals.
Watermelons	Exempt	7.2	No time limitations.

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## COPPER-ZINC CHROMATE COMPLEX

**PRINCIPAL FORMULATIONS:** 20.0%, 35.6%, 47.5%, 89.0% and 95.0% wettable powders  
3.0%, 5.7%, 6.0% and 8.0% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Avocados	Exempt	19.0	No time limitations.
Beets (table)	Exempt	2.0	No time limitations.
Cantaloupes	Exempt	3.0	No time limitations.
Carrots	Exempt	3.0	No time limitations.
Celery	Exempt	3.0	No time limitations.
Citrus:			
Grapefruit	Exempt	9.5	No time limitations.
Kumquat	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangerines	Exempt		
Tangeloes	Exempt		
Cucumbers	Exempt	3.0	No time limitations.
Cucurbits	Exempt	3.0	No time limitations.
Grapes	Exempt	1.9	No time limitations.
Melons	Exempt	3.0	No time limitations.
Peanuts	Exempt	1.9	No time limitations.
Peppers	Exempt	3.8	No time limitations.
Potatoes	Exempt	2.9	No time limitations.
Squash	Exempt	3.0	No time limitations.
Strawberries	Exempt	1.8	No time limitations.
Sugar beets	Exempt	3.0	No time limitations.
Tomatoes	Exempt	6.8	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CREOSOTE

**PRINCIPAL FORMULATIONS:** Technical material, or formulated with mineral oil

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		1 gal./50 gals.	Disinfect potato storage bins and other equipment used in potato production.
Animals:			
Beef Cattle		2.5%	Apply to infested area and rub into
Goats		Dust	hair or feathers until dust comes in
Poultry			contact with skin. Usually formulated
Sheep			with other ingredients.
Swine			
Agricultural Premises:			
Animal Sleep- ing Quarters		2.5%	Thoroughly treat all surfaces, especially
Barns		Dust	where insects hide or congregate. Usually
Hog Pens			formulated with other ingredients.
Sheep Folds		98.0%	Apply to interior surfaces of poultry
Etc.		in oil	houses or animal sleeping quarters by
			spraying or brushing.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CRYOLITE\*

**PRINCIPAL FORMULATIONS:** Pure substance either from natural sources or from synthetic manufacture. Finished formulations are ordinarily in the form of dusts ranging from about 20% to 100%. Sprays are rarely encountered.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(p.p.m. of combined fluorine)	lbs. actual/A.	
Almonds		8.0	No time limitations.
Apples	7	80.0	Remove excess residues by washing, brushing, or other effective means.
Apricots	7	80.0	Remove excess residues by washing, brushing, or other effective means.
Artichokes (including Jerusalem)		50.0	Remove excess residues by washing, brushing, or other effective means.
Asparagus		50.0	Do not apply during the cutting season.
Beans			
Dry	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Green			
Lima			
Snap			
Beets (including tops)	7	50.0	Do not apply after the seedling stage if tops are to be used for food. Otherwise, remove excess residues by washing, brushing, or other effective means.
Blackberries	7	60.0	Do not apply after fruit starts to form.
Blackeyed peas	7	50.0	Remove residues by washing, brushing, or other effective means.
Blueberries	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Broccoli	7	50.0	Do not apply after the edible parts start to form.

\*Sodium fluoaluminate

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

CRYOLITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(p.p.m. of combined fluorine)	lbs. actual/A.	
Brussels sprouts	7	50.0	Do not apply after the edible parts start to form.
Cabbage	7	50.0	Do not apply after the heads start to form.
Cantaloupes	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Carrots	7	50.0	No time limitations.
Cashews		80.0	No time limitations.
Cauliflower	7	50.0	Do not apply after the seedling stage.
Celery		50.0	Remove excess residues by washing, brushing, or other effective means.
Chestnuts		80.0	No time limitations.
Chicory		50.0	Do not apply after the seedling stage.
Chive		50.0	Do not apply after the seedling stage.
Collards	7	50.0	Do not apply after the seedling stage.
Corn	7	50.0	No time limitations.
Cowpeas		50.0	Remove excess residues by washing, brushing, or other effective means.
Cranberries	7	50.0	No time limitations. Remove excess residues by washing, brushing, or other effective means.
Cucumbers	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Eggplant	7	50.0	Remove excess residues by washing, brushing, or other effective means.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CRYOLITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(p.p.m. of combined fluorine)	lbs. actual/A.	
Endive		50.0	Do not apply after the seedling stage.
Filberts		80.0	No time limitations.
Garlic		50.0	No time limitations.
Grapefruit	7	80.0	No time limitations.
Grapes	7	60.0	Do not apply after fruit starts to form.
Horseradish		50.0	No time limitations.
Hazelnuts		80.0	No time limitations.
Hickory Nuts		80.0	No time limitations.
Huckleberries	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Kale	7	50.0	Do not apply after the seedling stage.
Kohlrabi	7	50.0	Do not apply after the seedling stage.
Kumquats	7	80.0	No time limitations.
Leeks		50.0	Do not apply after the seedling stage.
Lemons	7	80.0	No time limitations.
Lettuce	7	50.0	Do not apply after the seedling stage.
Limes	7	80.0	No time limitations.
Loganberries	7	60.0	Do not apply after fruit starts to form.
Melons	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Mint		50.0	No time limitations.
Mustard Greens	7	50.0	Do not apply after the seedling stage.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CRYOLITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(p.p.m. of combined fluorine)	lbs. actual/A.	
Okra	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Onions		50.0	No time limitations.
Oranges		80.0	No time limitations.
Parsley		50.0	Do not apply after the seedling stage.
Parsnips		50.0	No time limitations.
Peaches	7	80.0	Remove excess residues by washing, brushing, or other effective means.
Pears	7	80.0	Remove excess residues by washing, brushing, or other effective means.
Peas	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Pecans		80.0	No time limitations.
Peppers	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Plums	7	80.0	Remove excess residues by washing, brushing, or other effective means.
Potatoes		50.0	No time limitations.
Prunes	7	80.0	Remove excess residues by washing, brushing, or other effective means.
Pumpkins	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Radishes	7	50.0	No time limitations.
Raspberries	7	60.0	Do not apply after fruit starts to form.
Rhubarb		50.0	Remove excess residues by washing, brushing, or other effective means.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CRYOLITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(p.p.m. of combined fluorine)	lbs. actual/A.	
Rutabagas	7	50.0	No time limitations.
Salsify		50.0	Do not apply after the seedling stage.
Shallots		50.0	Do not apply after the seedling stage.
Soybeans		50.0	Remove excess residues by washing, brushing, or other effective means.
Spinach		50.0	Do not apply after the seedling stage.
Squash	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Strawberries	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Sugarcane		50.0	No time limitations.
Summer Squash	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Sweet Potatoes		50.0	No time limitations.
Swiss Chard		50.0	Do not apply after the seedling stage.
Tangeloes	7	80.0	No time limitations.
Tangerines	7	80.0	No time limitations.
Tomatoes	7	6.0	Dry bait formulation. Apply to foliage and on soil around plants.
Turnips (including tops)	7	50.0	Do not apply after the seedling stage if tops are to be used for food; otherwise, remove excess residues by washing, brushing, or other effective means.
Walnuts		80.0	No time limitations.
Watercress		50.0	Do not apply after the seedling stage.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CRYOLITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(p.p.m. of combined fluorine)	lbs. actual/A.	
Watermelons	7	50.0	Remove excess residues by washing, brushing, or other effective means.
Winter Squash	7	50.0	Remove excess residues by washing, brushing, or other effective means.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CUPROUS ARSENITE

**PRINCIPAL FORMULATIONS:** Wettable powder containing 7.0% or more of active ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Broccoli		0.6	Formulated with other ingredients. Do not apply after edible parts start to form.
Brussels Sprouts		0.6	Formulated with other ingredients. Do not apply after edible parts start to form.
Cabbage		0.6	Formulated with other ingredients. Do not apply after edible parts start to form.
Cauliflower		0.6	Formulated with other ingredients. Do not apply after edible parts start to form.
Cotton		0.75	Formulated with other ingredients. Do not feed treated cotton trash or forage to dairy animals or animals being finished for slaughter.
Kohlrabi		0.6	Formulated with other ingredients. Do not apply after edible parts start to form.
Potatoes		0.6	No time limitations.
Tomatoes		0.6	Remove residues at harvest.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CUPROUS OXIDE

**PRINCIPAL FORMULATIONS:** 25.0% and 90.0% powder; 4.5%, 8.3% and 9.0% dusts  
76.0% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	Exempt	7.2	Apply in popcorn stage and repeat when trees are in half bloom.
Apricots	Exempt	4.5	Apply in late fall and repeat in spring.
Bananas	Exempt	4.5	No time limitations.
Beans	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).
Beets	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).
Blackberries	Exempt	2.3	No time limitations.
Broccoli	Exempt	2.9	No time limitations.
Brussels sprouts	Exempt	2.9	No time limitations.
Cabbage	Exempt	2.9	No time limitations.
Cantaloupes	Exempt	3.0	No time limitations.
Carrots	Exempt	2.1	No time limitations.
Cauliflower	Exempt	3.4	No time limitations.
Celery	Exempt	5.0	No time limitations.
Cherries	Exempt	4.5	Begin application 2 weeks after shuck shed - 1 week later and 7-10 days later.
Citrus	Exempt	8.0	Complete spray schedule (close to harvest)
Coffee	Exempt	1.25 lbs. per 100 gals.	No time limitations.
Collards	Exempt	4.1	No time limitations.
Cucumbers	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).



**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**CUPROUS OXIDE**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Currants	Exempt	2.3	Apply just after blossoming. Postharvest application also.
Eggplants	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).
Garlic	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).
Gooseberries	Exempt	2.3	No time limitations.
Grapes	Exempt	2.3	Start application before bloom and continue until grapes are about the size of buckshot.
Kale	Exempt	4.1	No time limitations.
Kohlrabi	Exempt	4.1	No time limitations.
Lettuce	Exempt	2.3	Apply at 7-10 day intervals (close to harvest).
Melons	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).
Mustard	Exempt	4.1	No time limitations.
Okra	Exempt	4.1	No time limitations.
Onions	Exempt	2.0	Apply at 7-10 day intervals (close to harvest).
Peaches	Exempt	4.5	Apply in late fall and repeat in spring.
Peanuts	Exempt	2.0	No time limitations.
Peas	Exempt	3.0 oz./100 lbs. seed	Seed treatment only. Do not use treated seed for food or feed.
Peppers	Exempt	5.0	No time limitations.
Potatoes	Exempt	6.0	No time limitations.
Pumpkins	Exempt	3.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CUPROUS OXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Raspberries	Exempt	2.3	No time limitations.
Spinach	Exempt	3.0	No time limitations.
Squash	Exempt	3.0	No time limitations.
Strawberries	Exempt	3.2	Apply before fruit begins to form and after harvest is completed.
Tomatoes	Exempt	6.0	No time limitations.
Turnips	Exempt	3.0	No time limitations.
Walnuts	Exempt	8.0	Begin at prebloom - 3 additional sprays during early formation of nuts.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## CYANO (METHYLMERCURI) GUANIDINE

PRINCIPAL FORMULATIONS: 0.6%, 2.2%, 3.7% and 6.3% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual	
Apples		3.3/acre	Apply delayed dormant to petal fall.
Beans		0.097/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Corn (field)		0.077/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Corn (sweet)		0.097/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Cottonseed		0.25/acre	Soil and seed treatment in furrow at time of planting.
acid delinted		0.088/100 lbs.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
machine delinted		0.088/100 lbs.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
fuzzy		0.130/100 lbs.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
Flax		0.037/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Grain:			
Barley		0.018/bu.	Seed or planter box treatment. Do not use treated seed for food, feed, or oil.
Oats			
Rye			
Sorghum			
Wheat			
Peanuts		0.055/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Peas		0.097/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

CYANO (METHYLMERCURI) QUANIDINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual	
Rice		0.018/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Safflower		0.046/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Soybeans		0.097/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Vegetable Plantbeds		0.024/35	Apply 1 1/2-2 pts. per sq. ft. as a preemergence soil drench and only when seedlings are to be transplanted to untreated soil.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON\*

PRINCIPAL FORMULATIONS: 85% wettable powder, as sodium salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		1.1	Apply to seedling crop underseeded in flax when flax is 1-6 in. high.
		2.2	Apply 4 weeks after seedling or when plants are 2-3 inches tall. Do not feed first year's growth to dairy animals or animals being finished for slaughter.
		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Apples	3	11.1	Apply 1 or 2 sprays when grass is 6-10 inches tall and after trees are at least 4 years old. Do not graze livestock on treated areas.
Apricots	1	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than twice in any one season. Do not graze livestock on treated areas.
Asparagus	30	14.8	Apply as <b>single</b> application either before or after cutting season, or as split application with the first application before cutting or repeat 3-4 weeks later. During cutting season, apply immediately after cuttings. Later sprays should be directed under fern growth.
Bananas	5	11.1	Apply before grass heading stage; repeat at 4-6 week intervals. Do not apply more than 22.2 lbs. acid equivalent per year. Do not contaminate fruit, foliage, or young banana plants.

\*2,2-dichloropropionic acid

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Beets		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Birdsfoot trefoil		1.1	Apply to seedling crop underseeded in flax when flax is 1-6 in. high.
		2.2	Apply 4 weeks after seeding or when plants are 2-3 inches tall. Do not feed first year's growth to dairy animals or animals being finished for slaughter.
		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Citrus Fruits:			
Grapefruit	5	3.0	Apply 3 times. Do not spray foliage.
Lime	5		
Orange	5	0.74 lbs./	Apply as spot treatment. Do not spray
Tangerine	5	20 gal. H <sub>2</sub> O	foliage.
Coffee		7.4	Apply to grass as a directed spray. Repeat application in 4-6 weeks. Do not apply more than twice per year. Do not apply within 8 months of harvest.
Corn	10 grain & dry ear corn (kernels & cob)	7.4	Preplanting application when Johnson grass is 8-12 inches tall, followed by plowing 3 days later. Disc soil and plant corn 18 days after plowing.
	5 fodder & forage	1.5	Postemergence soil application as a directed spray on 14 inch band when corn is 8-20 inches tall, with rows spaced 40-42 inches apart. Keep spray off corn leaves by using leaf lifters. Do not use on corn grown for seed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn (sweet)	5 fresh corn (kernels & cobs with husks removed)	lbs. actual/A.  1.5	Postemergence application as directed spray on 14 inch band when corn is 8-20 inches tall, with rows spaced 40-42 inches apart. Keep spray off corn leaves by using leaf lifters. Do not use on corn grown for seed.
Cotton	35 (cotton- seed)	3.7  1.5 lb./5 gals. water	Apply as directed spray at time of last cultivation.  Spot application. (Directed spray when grass is 8-12 in. tall). Repeat at 3-4 week intervals as new grass appears.
		7.4	Preplanting application when Johnson grass is 8-12 inches tall, followed by plowing 3 days later. Disc soil and plant cotton 7-11 days after plowing.
Cranberries	5	8.8  1.5 (2 lbs./5 gals. water)	Spray treatment. Apply only in fall after cranberry harvest. Do not har- vest crop the year following treatment.  Swab treatment. Apply to grass above bushes, using no more than 2 applications. Do not apply within 60 days of harvest.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cranberries (contd.)	5	14.8	Ditch and shore treatments. Apply twice during June and July. Do not contaminate crop.
		7.4	Spray treatment. Apply in fall after cranberry harvest.
Cropland		22.2	Preplant fall soil application. Apply in fall and follow by spring plowing. Plant crops 4 weeks after plowing.
Flax	75 (flax- seed)	1.1	Apply when flax is 1-6 in. tall. May be used in flax underseeded to alfalfa, birdsfoot trefoil and sweet clover.
Grapes	3	14.8	Directed spray under grape trellis when grasses are actively growing. Repeat at 1/2 rate (7.4 lbs./acre) when grass reappears. Direct spray away from grape foliage.
Grass		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Macadamia nuts		9.0	Apply to ground cover under trees, before harvest and only after gleaning nuts during harvest. Do not apply directly to nuts. Do not apply more than 18 lbs./A./year.
Oats		7.4	Preplant spring soil application. Apply in spring and follow by plowing. Plant crops 5-6 weeks after plowing.
Pasture		7.4	Preplant application in spring or fall followed by plowing. Plant grass seeds 6 or more weeks after treatment.
Peaches	15	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than three times in any one season. Do not graze livestock on treated areas. Do not apply within 30 days of harvest.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pears	3	11.1	Apply 1 or 2 sprays when grass is 6-10 inches tall and after trees are at least 4 years old. Do not graze livestock on treated areas.
Peas	15 (peas & forage)	0.74	Apply after peas are 2-6 in. tall and have 4-6 nodes. Do not apply within 25 days of harvest. Do not feed treated pea vine hay to livestock.
Pineapple	3	7.4	Spot treatment. 1-6 month preharvest. Keep spray off pineapple foliage.
Plums	1	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than twice in any one season. Do not graze livestock on treated areas.
Potatoes	10	7.4	Preplanting or preemergence soil application in spring followed by plowing 4 days later. Plant crop immediately after plowing.
		3.7	Apply after last cultivation when grass seeds have germinated. Use vine lifter and direct spray on grass up to base of potato plant. Do not use on white rose or red skinned varieties.
Prunes	1	11.1	Spray area within 3 ft. radius of tree trunk. Do not apply more than twice in any one season. Do not graze livestock on treated areas.
Sorghum		7.4	Preplanting application when Johnson grass is 8-12 inches tall, followed by plowing 3 days later. Disc soil and plant sorghum 18 days after plowing.
Soybeans		7.4	Preplanting application when Johnson grass is 8-12 inches tall, followed by plowing 3 days later. Disc soil and plant soybeans 18 days after plowing.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DALAPON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Sugar beets	5 (roots & tops)	6.6	Postemergence. Apply as a directed spray. Do not apply after the 4-leaf stage.
Sugar cane		11.1	Preemergence or postemergence. Apply on drill row after grass is well developed.
Sweet clover		1.1	Apply to seedling crop underseeded in flax when flax is 1-6 in. high.
Wheat		7.4	Preplanting soil application in spring followed by plowing. Plant crop 5-6 weeks later.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT\*

PRINCIPAL FORMULATIONS: 50% wettable powder; 25% emulsifiable concentrate;  
5% dust; 10% aerosols

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. Do not apply to forage to be sold commercially or shipped interstate.
Almonds		8.0	Do not use treated hulls for food or feed.
Apples	7	18.0	30 days.
Apricots	7	12.0	42 days.
		16.0	42 days. Applied to trunks, crotches, and lower limbs.
Artichokes	7	2.5	Do not apply after edible parts start to form.
Asparagus	7	3.0	Do not apply during cutting season.
Avocado	7	12.0	30 days.
Barley		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Barley (seed)		2.0 oz./bu.	Do not use as food or feed.
Beans	7	6.0	7 days for green or snap beans. No limitation on dry beans. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Beans (seed)		2.0 oz./bu.	Do not use as food or feed.
Beets	7	6.0	Do not use treated tops for food or feed.
Blackberries	7	2.0	Do not apply after fruit starts to form.

\*Dichloro diphenyl trichloroethane

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Blackeyed Peas	7	6.0	7 days if pods are to be eaten. No limitation on shelled or dry peas. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Blackeyed Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Blueberries	7	2.5	Apply only before fruit starts to form or after harvest.
		2.0	21 days.
Boysenberries		2.0	Do not apply after fruit starts to form.
Broccoli	7	4.0	Do not apply after edible parts start to form.
Brussels Sprouts	7	4.0	Do not apply after edible parts start to form.
Bush & Vine Fruits:			
Blackberries	7	50.0	Single soil application when no fruit is present.
Blueberries	7		
Boysenberries	7		
Cranberries	7	0.5	Wet or dry bait formulation.
Currants	7		
Dewberries	7		
Gooseberries	7		
Grapes	7		
Huckleberries	7		
Loganberries	7		
Raspberries	7		
Strawberries	7		
Youngberries	7		
Cabbage	7	6.0	14 days if outer leaves are to be stripped at harvest, otherwise, do not apply after heads start to form.
Carrots	7	6.0	No time limitations.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cauliflower	7	6.0	Do not apply after edible parts start to form.
Celery	7	6.0	Do not apply after plants begin to bunch or after plants are half grown.
Cherries	7	12.0	30 days. Full coverage spray.
		16.0	Applied to trunks, crotches and lower limbs. 42 days.
Chestnuts		24.0	Do not apply after shucks begin to split.
Citrus:			
Grapefruit	7	50.0	Single soil application when no fruit is present.
Kumquats	7		
Lemons	7		Wet or dry bait formulations.
Limes	7	0.5	
Oranges	7		
Tangerines	7		
Tangeloes	7		
Clover		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. Do not apply to forage to be sold commercially or shipped interstate.
Collards	7	2.5	Do not apply after seedling stage. 21 days on greens for processing.
Corn			
Field	3.5 on kernels and cob (sweet corn only)	10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on use of grain as food or feed.
Sweet		3.0	Do not feed treated forage to dairy animals. Do not ensile treated corn. Do not feed stover from sweet corn receiving 3 applications, or feed field corn forage receiving late applications.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn		lbs. actual/A.	
Field		1.5	Granular formulation only. Do not feed treated forage to dairy animals. Do not feed treated forage to meat animals within 90 days of slaughter.
		0.75%	With 5.0% mineral oil. Individual ear treatment. No limitation.
Corn (seed)		2.0 oz./bu.	Do not use as food or feed.
Cotton	4 (cotton-seed)	3.0	Do not graze dairy animals or animals being finished for slaughter in treated fields.
Cotton (seed)		2.0 oz./bu.	Do not use as food or feed.
Cowpeas	7	10.0	Do not apply after pods start to form if pods are to be eaten. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Cowpeas (seed)		2.0 oz./bu.	Do not use as food or feed.
Cranberries	7	6.0	35 days.
Cucumbers			
Field	7	4.0	5 days. Excessive use may reduce plant growth.
Greenhouse	7	4.0	5 days.
		0.15 lbs./ 50,000 cu. ft.	Aerosol formulation. 5 days. Excessive use may reduce plant growth.
Currants	7	5.0	Do not apply after fruit begins to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Deciduous Fruits and Nuts:		lbs. actual/A.	
Almonds		50.0	Single soil application when no fruit is present.
Apples	7		
Apricots	7		
Cashews		0.5	Wet or dry bait formulations.
Cherries	7		
Chestnuts			
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory Nuts			
Nectarines	7		
Olives			
Peaches	7		
Pears	7		
Pecans			
Persimmons			
Plums	7		
Pomegranate			
Prunes	7		
Quinces	7		
Walnuts			
Dewberries		2.0	Do not apply after edible parts start to form.
Eggplant	7	6.0	5 days. Remove excess residues by wash- ing or brushing at time of harvest.
Endive	7	2.0	Do not apply after seedling stage.
Endive (greenhouse)	7	0.05 lbs./ 50,000 cu.ft.	Aerosol formulation. Do not apply after seedling stage.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber, & Forage Crops:		lbs. actual/A.	
Alfalfa		50.0	Single preplanting soil application.
Barley			
Birdsfoot Trefoil		0.5	Wet or dry bait formulation.
Buckwheat			
Clover			
Corn			
Cotton	4 (cotton- seed)		
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts	7		
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Filberts		8.0	No limitations.
Flax		4.0	Do not apply after blossom stage. Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on use of expressed oils.
Forage Legumes		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Garlic		3.0	No limitations.
Gooseberries	7	4.0	Apply only before fruit starts to form or after harvest.
Grain Crops		50.0	Preplanting soil application.
		0.5	Wet or dry bait formulation.
Grapefruits	7	40.0	30 days. Full coverage spray.
Grapes	7	5.0	40 days. (Do not use stickers after buckshot stage.)
Greenhouses		0.15 lbs./ 50,000 cu. ft.	Greenhouse aerosol formulation.
		25.0	Preplanting soil application or at time of planting.
Horseradish		2.5	No time limitations.
Huckleberry		5.0	No application after fruit starts to form.
Jerusalem Artichoke	7	4.0	No time limitations.
Kale	7	2.5	Do not apply after seedling stage. (21 days on greens to be processed.)
Kohlrabi	7	4.0	Do not apply after edible parts start to form.
Kumquat	7	40.0	30 days. Full coverage spray.
Lemons	7	40.0	30 days. Full coverage spray.
Lespedeza		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Lettuce	7	6.0	Do not apply after heads or edible parts start to form. Do not apply after seedling stage on leaf lettuce.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Lettuce (cont.)	7	1bs. actual/A. 2.0	7 days if outer leaves are stripped at harvest, otherwise make no application to head lettuce after the heads have started to form.
Lettuce (greenhouse)	7	4.0	Do not apply after heads or edible parts start to form. Do not apply after seedling stage on leaf lettuce.
		0.15 lbs./ 50,000 cu. ft.	Aerosol formulation. Do not apply after heads or edible parts start to form. Do not apply after seedling stage on leaf lettuce.
Lima Beans	7	7.0	7 days. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Limes	7	40.0	30 days. Full coverage spray.
Loganberries	7	2.0	Do not apply after edible parts start to form.
Mango	7	12.0	30 days.
Melons	7	12.0	5 days.
		1.5	No limitations.
Milo		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Milo (seed)		2.0 oz./bu.	Do not use as food or feed.
Mint			
Peppermint Spearmint	100 (mint oil)	3.0	14 days. Do not feed mint hay or spent mint hay to livestock.
	50 (mint hay)		

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Mustard greens	7	2.5	Do not apply after seedling stage. (21 days on greens grown for processing.)
Nectarines	7	12.0	Full coverage spray. 30 days.
Oats		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Oats (seed)		2.0 oz./bu.	Do not use as food or feed.
Okra	7	2.5	7 days.
		6.0	No application after pods start to form.
Olives		1.0%	Postharvest application to stubs before and after waxing.
		16.5	Postharvest application to trees (with 44 gals. kerosene or light to medium summer oil in full coverage water spray).
Onions	7	4.0	Do not apply to green or spring onions.
Oranges	7	40.0	30 days. Full coverage spray.
Papayas	7	8.0	30 days.
Parsnips	7	2.5	Do not use treated tops for food or feed.
Parsley		4.0	Do not apply after seedling stage.
Pasture grass		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Peaches	7	12.0	30 days. Full coverage spray.
Peanuts	7	10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Peanuts (seed)		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pears	7	18.0	30 days. Full coverage spray.
Peas	7	6.0	Do not apply to varieties with edible pods after pods start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Peas (seed)		2.0 oz./bu.	Do not use as food or feed.
Pecans		30.0	Do not apply after shucks split.
Peppers	7	6.0	5 days. Remove residues at time of harvest by washing or brushing.
Pineapples	7	50.0	Single soil application when no fruit is present.
		0.5	Wet or dry bait formulation.
		3.0	Do not feed treated pineapple skins or shells to dairy animals or animals being finished for slaughter.
Potatoes	1	6.0	Do not feed culled potatoes to dairy animals.
Plums	7	12.0	30 days. Full coverage spray.
		16.0	42 days. Applied to trunks, crotches, and lower limbs.
Prunes	7	12.0	30 days. Full coverage spray.
		16.0	42 days. Applied to trunks, crotches, and lower limbs.
Pumpkins	7	2.0	5 days.
Quince	7	18.0	30 days.
Radishes	7	2.5	No time limitations.

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DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Radishes (greenhouse)	7	lbs. actual/A. 0.15 lbs./ 50,000 cu. ft.	Greenhouse aerosol formulation. Do not apply after seedling stage.
		4.0	Do not apply after seedling stage.
Raspberries	7	2.0	Do not apply after edible parts start to form.
Rice		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Rice (seed)		2.0 oz./bu.	Do not use as food or feed.
Rutabagas	7	4.0	Do not use treated tops for food or feed.
Rye		10.0	Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Rye (seed)		2.0 oz./bu.	Do not use as food or feed.
Safflower		2.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Small Grains (seed)		2.0 oz/bu.	Do not use as food or feed.
Sorghum		10.0	Do not apply after heads start to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Sorghum (seed)		2.0 oz./bu.	Do not use as food or feed.
Soybeans		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Soybeans (seed)		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Spinach	7	6.0	Do not apply after seedling stage. Do not apply to spinach grown for processing within 21 days of harvest.
Squash			
Summer	7	2.0	5 days.
Winter			
Strawberries	7	4.0	Apply only before fruit starts to form or after harvest.
Sugar Beets		10.0	Do not feed treated tops to dairy animals or animals being finished for slaughter. Disregard caution if application is made at time of planting or before.
Sweet Potatoes	7	2.5	Do not feed treated forage to dairy animals or animals being finished for slaughter
		2.2 grams/ crate	Apply dust to harvested tubers before storing. Wash potatoes before use.
Swiss Chard	7	2.5	Do not apply after seedling stage. Do not apply to greens grown for processing within 21 days of harvest.
Tangelos	7	40.0	30 days. Full coverage.
Tangerines	7	40.0	30 days. Full coverage.
Tomatoes	7	4.0	5 days.
Tomatoes (greenhouse)	7	4.0	5 days.
		0.15 lbs./ 50,000 cu. ft.	5 days. Greenhouse aerosol formulation.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Tropical Fruits:			
Avocados	7	50.0	Single soil application when no fruit is present.
Bananas			
Guavas	7		
Mangoes	7	0.5	Wet or dry bait formulation.
Papayas	7		
Passion Fruit			
Turnips	7	4.0	Do not use treated tops for food or feed.
Vegetables:			
Asparagus	7	50.0	Single pre-planting soil application or at time of planting.
Beans	7		
Beets	7		
Blackeyes Peas	7		
Broccoli	7		
Brussels Sprouts	7		
Cabbage	7		
Cantaloupes			
Carrots	7		
Cauliflower	7		
Celery	7		
Collards	7		
Corn	3.5		
	(sweet corn kernels & cob)		
Cowpeas			
Cucumbers	7		
Eggplants	7		
Endive	7		
Garlic			
Horseradish			
Kale	7		
Kohlrabi	7		
Leeks			
Lettuce	7		
Melons	7		
Mustard Greens	7		
Okra	7		
Onions	7		



USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables: (cont.)			
Parsnips	7	50.0	Single pre-planting soil application or at time of planting.
Peas	7		
Peppers	7		
Pimentoes			
Potatoes			
Pumpkins	7		
Radishes	7		
Rutabagas	7		
Salisfy			
Shallots			
Spinach	7		
Squash (summer)	7		
Squash (winter)	7		
Sweet Potatoes	7		
Swiss Chard	7		
Tomatoes	7		
Turnips	7		
Watermelons	7		
Vetch		10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Walnuts		8.0	No time limitations.
Wheat		10.0	Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Wheat (seed)		2.0 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:		lbs. actual/A.	
Beef Cattle	7 in fat	10%	Dust. Applied thoroughly to animal. Do not apply to dairy animals.
		50.0% W.P.	Apply one heaping tablespoon on the back of each animal and rub into hair. Do not apply to dairy animals.
		5.0% in oil	Applied by back-rubbers. Do not apply to dairy animals.
		25.0%	Formulated with other ingredients. Applied as spot treatment to open wounds or screw-worm infestations. Do not apply to dairy animals during lactation.
Goats Sheep	7 in fat	10%	Dust. Applied thoroughly to animal. Do not apply to dairy goats.
		0.5% in water	Dip or spray. Do not apply to dairy goats.
		50.0% W.P.	Apply 1 heaping tablespoon on the back of each animal and rub into hair. Do not apply to dairy goats.
		25.0%	Formulated with other ingredients. Applied as a spot treatment to open wounds or screw-worm infestations. Do not apply to dairy goats during lactation.
Swine	7 in fat	10%	Dust. Apply thoroughly to animal.
		0.5% in oil or water	Dip or spray.
		5.0% in oil	Applied by rubbing devices.
		25.0%	Formulated with other ingredients. Applied as a spot treatment to open wounds or screw-worm infestations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDT

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Agricultural Premises including:</p> <p>Barns Milk rooms Sheep folds Hog pens (excluding dairy barns &amp; poultry houses)</p>	7	lbs. actual/A.	
		6.0% in oil or water	Residual surface spray. Do not contaminate food, feed, or drinking water. Exclude animals during treatment.
		10.0% dust	Apply thoroughly to premises. Do not contaminate food, feed, or drinking water. Exclude animals during treatment. Do not use in milk rooms.
		6.0% in oil or water	Use as a space spray. Do not contaminate food, drinking water or feed troughs. Exclude animals during treatment.
Mushroom Houses	7	200 mg./sq.ft.	Residual spray on interior surfaces. Do not apply when mushrooms are present.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDVP\*

PRINCIPAL FORMULATIONS: Technical material; emulsifiable concentrate containing 4 lbs./gal.; 0.5% liquid; 3.0% tablets

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:			
Beef cattle Dairy cattle		25 mg./animal	Sweetened bait formulation. Apply by brushing or spraying. Repeat daily for 2 weeks and as needed thereafter.
		570 mg./animal	Apply daily in oil or water as a mist spray.
		0.17% (in oil)	Apply by back-rubbing devices.
Goats Sheep Swine		285 mg./animal	Apply daily in oil or water as a mist spray.
Chickens (in laying cages)		3.0% tablets	Place two tablets (4 grams each) in special holder under center of floor of each wire cage. Replace tablets as necessary.
Agricultural Premises:			
Barns Dairy barns Feed lots Milk rooms Poultry houses Stables Etc.		1.0%	Dry sugar bait or syrup bait formulations. Apply to floors, window sills, fences, etc. at the rate of 0.25 lbs. per 1000 sq. ft. Do not contaminate milk, milk handling equipment, feed, or drinking water.
		0.1%	Liquid bait formulation. Apply to floor and ground at the rate of 3 gals. per 1000 sq. ft. Apply in poultry houses out of reach of birds at the rate of 1/2 gal. per 100 sq. ft. Apply to garbage cans and manure piles at the rate of 3 gals. per 100 sq. ft. Do not contaminate water, feed, milk, or milking equipment.

\*O,O-Dimethyl-2,2-dichlorovinyl phosphate

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DDVP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises: (cont.)		1.0% in oil or water	Apply as a fog or mist inside building at the rate of 1 pint per 8,000 cu. ft. Do not contaminate feed, drinking water, milk, or milking equipment. Do not apply in areas where animals have received direct applications of DDVP within 8 hours.
		0.5%	Apply as a spray to all exterior and interior surfaces at the rate of one quart per 1000 sq. ft. Apply to manure piles and garbage dumps at the rate of two quarts per 100 sq. ft. Do not contaminate water, feed, milk, or milking equipment.
Cattle feed lots <b>Corrals</b> <b>Holding Pens</b> <b>Stockyards</b>		5.0% in oil or water	Apply with a mist blower or other suitable equipment as an overall application at the rate of 0.2 lbs. actual per acre. Direct mist over entire area, thoroughly treat areas where flies congregate such as: fences, feeding areas and walls of buildings. Animals need not be removed during application. Avoid direct application to exposed feed and water. For bait spray, add 1 lb. of sugar per 5-10 gallons of spray.
Poultry Houses			
Poultry pens Poultry yards		2.5 lbs. of 0.5% DDVP on vermiculite carrier per 650 sq. ft.	Scatter on litter around feed troughs, dusting holes, nesting areas, and roosting areas. Repeat application after 6 days. For continued protection, repeat application every 30 days.
Special:			
Outdoor fogging		0.2% in oil	Formulated with other ingredients. Apply by fogging machines. Thoroughly treat premises.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

DDVP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Mushroom Houses		0.5%  32 grams per 16,000 cubic feet	Apply to interior surfaces by brushing or spraying when no mushrooms are present.  Apply by aerosol or hot pipe method 0.9 fluid oz. of emulsion concentrate every four days. Repeat if necessary. Do not apply within 1 day of harvest.





# USDA Summary of Registered Agricultural Pesticide Chemical Uses

DECACHLOROCTAHYDRO-1,3,4-METHENO-2H-CYCLOBUTA [CD] PENTALENE-2-ONE

PRINCIPAL FORMULATIONS: 10% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas (seed beds only)		lbs. actual/A.  4.0	Apply to soil surface in a 12-inch wide circular band adjacent to the plant. Distribute evenly over area. Start application any time borers are a problem in seed bed. Do not reapply within 6 months.
Sugarcane		2.0 (bait)	<u>Row</u> - place bait around cane in open furrow before sealing.  <u>Broadcast</u> - scatter bait evenly over area before planting. Disc into soil.  <u>Side dressing</u> - apply in a band beside the ratoons. Disc into soil.  Do not plant crops other than sugarcane in treated soil.
		3.25 (spray)	<u>Row</u> - spray over cane seed pieces and adjacent soil in open furrow.  <u>Broadcast</u> - apply evenly over areas and disc into soil.

Proprietary Name: Kepone

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DEHYDROACETIC ACID (Sodium Salt)

PRINCIPAL FORMULATIONS: 100% wettable powder; 10% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Strawberries	65 (as dehydro- acetic acid	0.5% solution	Dip strawberries for 30 seconds and drain. Do not rinse.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DEMETON\*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing 2 lbs. per gallon of the mixed thiophosphates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	5 (on fresh forage)	0.25	Only one application between cuttings. Do not apply within 21 days of harvest or grazing.
	12 (on hay)		
Almonds	0.75 (in nuts)	0.75	21 days.
	5.0 (in hulls)		
Apples	0.75	2.25	21 days. Not more than 3 applications per season.
		6.0	21 days. Not more than 1 application per season.
Apricots	0.75	2.0	30 days. No more than 3 applications per season.
Barley	0.75 (grain)	0.25	Do not apply more than twice per season. Allow 14 days between applications. Do not apply within 45 days of harvest for grain. Do not graze or cut for forage within 21 days after application.
	5.0 (forage & straw)		
Beans	0.3	0.5	21 days.
Blackberries		1.5	Postharvest application only.
Broccoli	0.75	0.5	21 days.
Brussel sprouts	0.75	0.5	21 days.
Cabbage	0.75	0.5	21 days.

\*O-O-diethyl O (and S)-2-(ethylthio)ethyl phosphorothioates

Proprietary name: Systox

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DEMETON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cauliflower	0.75	0.5	21 days.
Celery	0.75	0.5	28 days.
Cherries		2.0	Only one application applied during prebloom or petal fall stages.
Clover	5 (on forage)  12 (on hay)	0.25	Only one application between cuttings. Do not apply within 21 days of harvest or grazing.
Cotton	0.75 in or on cotton-seed	0.38	21 days. Do not graze dairy or meat animals on treated fields. Do not feed gin waste to livestock.
Dewberries		1.5	Postharvest application only.
Filberts		2.5	40 days.
Gooseberries		1.5	Postharvest application only.
Grapefruit	0.75	2.5	21 days.
Grapes	1.25	0.38	21 days.
Hops	1.25	0.5	21 days.
Lemons	0.75	2.5	21 days.
Lettuce	0.75	0.5	21 days.
Loganberries		1.5	Postharvest application only.
Muskmelons	0.75	0.38	21 days.
Nectarines		2.0	30 days. Not more than 3 applications per season.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DEMETON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Oats	0.75 (grain)  5.0 (forage and straw)	0.25	Do not apply more than twice per season. Allow 14 days between applications. Do not apply within 45 days of harvest for grain. Do not graze or cut for forage within 21 days after application.
Oranges	0.75	2.5	21 days.
Peaches	0.75	2.0	30 days. Not more than 3 applications per season.
Pears	0.75	2.25	21 days. Not more than 3 applications per season.
		3.0	21 days. Not more than 1 application per season.
Peas	0.75	0.5	21 days.
Pecans	0.75	1.0	21 days.
Pepper	0.75	0.38	3 days.
Pineapples		0.5 lbs./100 gals. of water	Preplanting treatment. Dip seed pieces thoroughly.
Plums	0.75	2.0	30 days. Not more than 3 applications per season.
		3.0	60 days. Do not apply more than twice per season.
Potatoes	0.75	0.5	21 days.
Prunes	0.75	2.0	30 days. Not more than 3 applications per season.
		3.0	60 days. Do not apply more than twice per season.
Raspberries		1.5	Postharvest application only.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DEMETON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sorghum		lbs. actual/A. 0.25	Do not apply within 35 days of harvesting grain, grazing, or cutting for forage. Do not apply more than once per season.
Strawberries	0.75	0.38	21 days.
Sugar beets	0.5 on beets	0.5	Do not apply within 30 days of harvest. Do not apply more than 3 times per season.
	5.0 on tops or pulp		
Tomatoes	0.75	6.0 oz. actual/ acre	3 days.
Walnuts	0.75	0.75	21 days.
Watermelons		0.38	7 days.
Wheat	0.75 (grain)	0.25	Do not apply more than twice per season. Allow 14 days between applications. Do not apply within 45 days of harvest for grain. Do not graze or cut for forage within 21 days after application.
	5.0 (forage and straw)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DIAMMONIUM ETHYLENE BIS-DITHIOCARBAMATE

PRINCIPAL FORMULATIONS: 42% liquid

USE	TOLERANCE (ppm)	DOSAGE 1/	LIMITATIONS
	(as zineb)		
Celery	7	1 qt./100 gals. water	Begin when plants come through the ground and continue as needed throughout growing season.
Citrus	7	3 qts./500 gals. water (with 2-1/2 lbs. zinc sulfate)	Two applications at the rate of 10 gals. per tree at 4- to 6-week intervals be- tween July 1 and August 15.
Corn	7	1 qt./100 gals. water	Begin when corn is 5"-6" tall and repeat at 5-7 day intervals until harvest.
Cotton		2 qts./10 gals. water	Applied to the furrow at time of planting.
Lettuce	25	2 qts./100 gals. water	Plant bed use only. Apply weekly as a soil drench.
Mushrooms	7	1 qt./100 gals. water	Apply to casing soil between "breaks."
Onions	7	1 qt./100 gals. water	7 days.
Peppers	7	1 qt./100 gals. water	Plant bed use only. Apply weekly as a soil drench.
Potatoes		1 qt./100 gals. water	7 days.

1/ Formulation is not used alone, on crops, but is used in tank mix preparations by reaction with zinc sulfate to form zineb. One or two quarts of the 42% liquid and either 3/4 lb. zinc sulfate monohydrate (36% zinc) OR 1 lb. flake zinc sulfate (25% zinc) are employed per 100 gals. of spray.



## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DIAMMONIUM ETHYLENE BIS-DITHIOCARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zineb)		
Pumpkins	7	1 qt./100 gals. water	7 days.
Spinach	25	1 qt./100 gals. water	7 days.
Squash	7	1 qt./100 gals. water	7 days.
Tomatoes	7	1 qt./100 gals. water	7 days.

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DIATOMACEOUS EARTH

PRINCIPAL FORMULATIONS: 80% silicon dioxide

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Stored Grain:		lbs./actual silicon dioxide/ ton of grain	
Barley	Exempt	5.6	Apply uniformly to grain as it is placed into storage.
Buckwheat	"		
Corn	"		
Oats	"		
Rice	"		
Rye	"		
Sorghum grain (milo)	"		
Wheat	"		
Mixtures of these	"		

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C<sub>3</sub> COMPOUNDS

PRINCIPAL FORMULATIONS: 71% and 86% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apricots	5	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Bananas	125 (75 in pulp)	17 - 86	Preplanting or at time of planting application in rows to mineral soil.
		17 - 52	An initial postplanting application.
		17	Subsequent postplanting treatment not more than once in each 9-12 month period after initial application.
Beans (snap)	75	17 - 24	Preplanting, at time of planting or postplanting application to mineral soils. For preplant application wait 7-14 days before planting. Do not feed vines to livestock.
Blackberries	25	26 - 86	Preplanting, at time of planting or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Boysenberries	25	26 - 86	Preplanting, at time of planting or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Broccoli	50	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Brussels sprouts	50	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C<sub>3</sub> COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cabbage	50	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Cantaloupes	50	17 - 26	Preplanting or at time of planting to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.
Carrots	75	17 - 24	Preplanting, at time of planting, or postplanting to mineral soils. For preplanting use wait 7-14 days before planting. Do not feed plant parts to livestock.
Cauliflower	50	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Celery	75	60 (plant beds)	Preplanting, or postplanting drench in plant beds. If preplanting application is made, wait 7-14 days before seeding.
		17 - 24 (field)	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Cotton	25 (in seed)	17 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting.
Cucumbers	25	17 - 26	Preplanting, or at time of planting to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C<sub>3</sub> COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Dewberries	25	26 - 86	Preplanting, at time of planting, or postplanting to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Eggplants	50	17 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting.
Endive (Escarole)	130	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting.
Figs	75	61	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 4-6 weeks before planting. Do not apply within one year of harvest.
Grapes	25	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Honeydew melons	50	17 - 26	Preplanting, or at time of planting application to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.
Lettuce	130	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Loganberries	25	26 - 86	Preplanting, at time of planting or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C<sub>3</sub> COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Muskmelons	50	17 - 26	Preplanting, or at time of planting application to mineral soils. For preplanting use wait 7-14 days before planting. No postplanting application.
Nectarines	5	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Okra	75	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Parsnips	75	17 - 24	Preplanting, at time of planting or postplanting to mineral soils. For preplanting use wait 7-14 days before planting. Do not feed plant parts to livestock.
Peaches	5	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-6 weeks before planting.
Peppers	50	13 - 26 (direct seeded)	Preplanting overall. Wait 7-14 days before planting.
		5.7 - 8.6 (direct seeded)	Preplanting, at time of planting, or postplanting row application. For preplanting use wait 7-14 days before planting.
		13 (transplants)	Preplanting overall treatment. Allow 2 weeks between treatment and planting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C<sub>3</sub> COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pineapples	50	lbs. actual/A. 34 - 138	Preplanting or at time of planting application to mineral soils. Inject into soil at 5-8 inch depth and at least 6 inches to one side of plant line. Postplant: Injected as above or applied in 0.1 acre inch of water. Do not apply within 270 days of harvest and do not exceed 138 pounds in a single year in any combination of treatments.
Radishes	75	17 - 24	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Raspberries	25	26 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not apply within 48 days of harvest.
Squash (summer)	25	17 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 7-14 days before planting.
Strawberries	10	8 - 26	Preplanting, at time of planting, or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Allow at least 300 days between treatment and harvest.
Tomatoes	50	13 - 26 (direct seeded)	Preplanting overall. Wait 7-14 days before planting.
		5.7 - 8.6 (direct seeded)	Preplanting, at time of planting, or postplanting application in rows. For preplanting use wait 7-14 days before planting.
		13 (transplants)	Preplanting overall treatment. Allow at least 2 weeks between treatment and planting.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

1,2-DIBROMO-3-CHLOROPROPANE + OTHER HALOGENATED C<sub>3</sub> COMPOUNDS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Turnips	75	lbs. actual/A. 17 - 24	Preplanting, at time of planting or postplanting application to mineral soils. For preplanting use wait 7-14 days before planting. Do not feed plant parts to livestock.
Walnuts	10	34 - 86	Preplanting, at time of planting, or postplanting application to mineral soils. If preplanting application is made, wait 4-8 weeks before planting. Allow at least 100 days between treatment and harvest.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DICAPTHON\*

PRINCIPAL FORMULATIONS: Wettable powder; 1% bait

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:			
Barns		1.0% in water	Apply as a residual spray to surfaces where flies alight or congregate. Do not apply when animals are present.
Dairy Barns			Do not contaminate milk, milking equipment, feed, or drinking water.
Poultry Houses		1.0%	Dry bait formulation in combination with other ingredients. Apply 0.5 lbs./1000 sq. ft.
Other Farm Buildings			For liquid bait, add 1 lb./gal. of water. Do not apply inside milk rooms or inside dairy barns during milking time.
Poultry Droppings		1.0% in water	Apply as a spray to droppings under poultry cages. Do not use treated manure as fertilizer for food crops.

\*O-(2-chloro-4-nitrophenyl) O,O-dimethyl phosphorothioate

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## DICHLONE\*

PRINCIPAL FORMULATIONS: 1.0%, 1.5%, 2.0%, 3.0%, 4.0% dusts  
50.0% wettable powder; 55.0% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A	
Almonds		3.0	No application after petal fall.
Apples	3	4.0	1 day.
Apricots		2.0	No application after petal fall.
Beans	3	1.12	7 days.
Cabbage		0.4 (combined with 30% sulfur)	Four weeks after planting.
Celery	3	0.75	No time limitations.
Cherries	3	1.25	3 days.
Corn (field, pop and sweet)		0.75 oz./100 lbs.	Seed treatment. Do not use treated seed for food or feed.
Cotton		0.5	Seed furrow treatment only.
		0.15 lbs./ seed for 1 acre	Planter box seed treatment.
Mint		1.0	4 to 6 applications at 10-14 day intervals.
Nectarines		0.3 (combined with sulfur)	Do not apply after blossom period.
Peaches	3	2.5	7 days.
Peanuts		2.0 oz./bu.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Pears		2.5	First cover.
Peas		1 oz./100 lbs.	Seed treatment (dry or slurry). Do not use treated seed for food or feed.

\*2,3-dichloro-1,4-naphthoquinone

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

DICHLONE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Plums	3	1.25	3 days.
Potatoes		0.6%	Use as a dip for seed pieces.
		1.3	Foliage treatment. No time limitations.
Prunes	3	1.25	3 days.
Raspberries		1.0	No application after bloom stage.
Rice		1 oz./100 lbs.	Seed treatment (dry or slurry). Do not use treated seed for food or feed.
Sorghum		1 oz./100 lbs.	Seed treatment (dry or slurry). Do not use treated seed for food or feed.
Strawberries	15	0.4	3 days.
Sweet potatoes		0.12%	Post-harvest application to potatoes before storage.
		2 ozs. 50% W.P. in 1 gal. water	Dip sprouts prior to planting.
Tomatoes	3	1 lb. 50% W.P. in 100 gals. water	Plant bed treatment.
		1.25	No time limitations.
		0.5 lb./100 gal.	Dip after pulling before planting.
Watermelon		1.9	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

DICHLORAL UREA\*

PRINCIPAL FORMULATIONS: 73.0% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugar beets		lbs. actual/A.	
		7.3	Pre-emergence. Soil incorporation 2" deep at time of planting.
		14.6	Pre-emergence. No soil incorporation at time of planting.

\* 1,3-bis(2,2,2-trichloro-1-hydroxy ethyl) urea (DCU)

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

2, 3-DICHLOROALLYL DIISOPROPYLTHIOLCARBAMATE\*

PRINCIPAL FORMULATIONS: 45.7% emulsifiable concentrate containing 4 pounds active ingredient per gallon.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		lbs. actual/A.  1.25	Preplanting soil incorporation. Plant within 3 weeks after application. Do not graze livestock on treated areas. or Preemergence soil incorporation before crop sprouts are 1/2 inch long. Do not graze livestock on treated areas.
Corn Grain Silage		1.5	Preplanting soil incorporation. Plant within 3 weeks after application. or Preemergence soil incorporation within 5 days after planting.
Flax		2.0	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation soon after planting.
Forage Legumes Alfalfa Alsike Clover Red Clover Sweet Clover		2.0	Preplanting soil incorporation. Plant crop alone or with resistant crops within 3 weeks after application.
Lentils		1.5	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation soon after planting.
Peas		1.5	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation soon after planting.

\*Proprietary name: "Avadex"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3-DICHLOROALLYL DIISOPROPYLTHIOLCARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Potatoes		2.0	Preplanting soil incorporation. Plant crop within 3 weeks after application.
Safflower		1.5	Preplanting soil incorporation. Plant crop within 3 weeks after application.
Sugar beets		2.0	Preplanting soil incorporation. Plant crop within 3 weeks after application. Do not use on light sandy soil.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,6-DICHLOROBENZO NITRILE\*

PRINCIPAL FORMULATIONS: 4% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cranberries		lbs. actual/A.  4.0	Apply in early spring as a single application or as split applications 3-6 weeks apart. Do not apply after blooming starts. or Postharvest application in late fall.

\*Proprietary name: Dichlobenil

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**2,4-DICHLORO-6-o-CHLOROANILINO-s-TRIAZINE\***

**PRINCIPAL FORMULATIONS:** 50% wettable powder; 5% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Blackberries	10	2.0	14 days.
Blueberries	10	1.5	14 days.
Cantaloupes	10	3.0	No time limitations.
Celery	10	3.0	No time limitations. Treated celery should be washed and trimmed.
Cranberries	10	3.0	14 days.
Cucumbers	10	3.0	No time limitations.
Dewberries	10	2.0	14 days.
Garlic	1	3.0	No time limitations.
Honeydew melons	10	3.0	No time limitations.
Huckleberries	10	1.5	14 days.
Loganberries	10	2.0	14 days.
Muskmelons	10	3.0	No time limitations.
Onions (dry bulb)	1	3.0	No time limitations. Do not use on green or spring onions.
Onions (green)	10	1.5 (spray) 2.0 (dust)	No time limitations. (Not recommended for use in Florida).
Potatoes	1	2.6	No time limitations. Schedule applications in accordance with local recommendations and conditions.
Pumpkins	10	3.0	No time limitations.
Raspberries	10	2.0	14 days.
Shallots	10	1.5 (spray) 2.0 (dust)	No time limitations. (Not recommended for use in Florida).

\*Proprietary name: "Dyrene"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHOXYCHLOR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals: (Cont.)		lbs. Actual/A.	
Beef Cattle	3 (in fat)	50.0% dust	Thorough application to animal. Work dust into hair.
		1.5% in water	Spot treatment for control of tail lice. Thoroughly treat infested area.
Dairy Cattle (Lactating)	0 (in milk)	5 grams in powdered form	Apply on the back and neck of each animal. Rub powder into hair with the hand. Repeat every 3 weeks if necessary.
Dairy Cattle (Non-lactating)	0 (in milk)	1.0% in water	Dip or spray. Thoroughly wet animals. Two quarts per head for large animals and proportionally less for smaller ones. Do not apply during lactation or within 2 weeks of freshening. Do not dip calves under one month of age.
		15.0% dust	Thorough application to animals. Work dust into hair. Do not apply during lactation or within 2 weeks of freshening.
Poultry		1.0% in water	Dip or spray. Thoroughly drench birds. No time limitation.
		15.0% dust	Thorough application to birds. No time limitation.
Goats Sheep	3 (in fat)	1.0% in water	Dip or spray. Thoroughly wet animals. Do not apply to lactating goats.
		0.5% in oil	Mist spray application at 2.0 oz. per animal. Do not wet the hide. Do not apply to lactating goats.
		50% dust	Thorough application to animal. Work dust into wool. Do not apply to lactating goats.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHOXYCHLOR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals: (Cont.)</p> <p>Swine</p>	3 (in fat)	<p>lbs. Actual/A.</p> <p>5.0% in oil</p> <p>1.0% in water</p> <p>0.5% in oil</p> <p>15.0% dust</p>	<p>Apply by rubbing devices.</p> <p>Dip or spray. Thoroughly wet animals.</p> <p>Liberal application to animals.</p> <p>Liberal application to animal and pens.</p>
<p>Agricultural Premises:</p> <p>Barns Dairy Barns Poultry Houses Milk Rooms Animal Pens Farm Buildings Etc.</p>		<p>0.8 lbs. /1000 sq. ft.</p> <p>2.0 oz./ 1000 cu. ft.</p>	<p>Residual surface spray on interior and exterior surfaces. Do not contaminate milk, feed, or drinking water. Exclude dairy animals while treating barns.</p> <p>Formulated with other ingredients as a space and contact spray. Exclude dairy cattle from building before application. Do not contaminate milk, feed, or drinking water.</p>
Grain Bins	2 (on grain)	0.8 lbs./ 1000 sq. ft.	Empty grain bin treatment only.
Greenhouses		0.8 oz./ 50,000 cu. ft.	Greenhouse aerosol formulation.
Mushroom Houses	14 (on mushroom rooms)	150 mg./sq. ft. in water	Apply spray to beds, walls, posts, etc. when mushrooms are not present.
General			
Outdoor Fogging		0.2 lbs./A.	Formulated with other ingredients and applied by fogging machines.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 2-METHOXY-3,6-DICHLORO BENZOIC ACID

PRINCIPAL FORMULATIONS: 57% liquid (dimethylamine salt)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Wheat		lbs. actual/A.  0.25	Apply when spring wheat is in 2-5 leaf stage or immediately after winter wheat dormancy and before jointing. Do not contaminate domestic or irrigation water. Do not graze treated areas or feed treated forage to livestock.

Proprietary Name: Dicamba

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## METHOXY ETHYL MERCURY ACETATE

**PRINCIPAL FORMULATIONS:** 4.88% and 11.4% liquids; 24.0% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cotton		1.5	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		2.0	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rice		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

PRINCIPAL FORMULATIONS: 98.0% compressed gas; 98%, 69% and 26.0% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<u>Commodity</u> <u>Fumigation</u>	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Artichokes		1.0	Expose to fumigation for two hours.
Barley	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Beans (all) (including green, dry, and lima)	50	3.5	Expose to fumigation for 24 hours.
Beets	30	3.0	Expose to fumigation for four hours.
Bitter Melons		2.0	Expose to fumigation for four hours.
Buckwheat		3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Cabbage	50	4.0	Expose to fumigation for four hours.
Carrots	30	4.0	Expose to fumigation for four hours.
Celery		3.0	Expose to fumigation for two hours.
Chestnuts	200	6.0	Expose to fumigation for six hours.
Chickory roots		3.5	Expose to fumigation for 24 hours.
Cipollini Bulbs	50	4.0	Expose to fumigation for four hours.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Citrus Fruits:			
Citrus Citron	30	3.0	Expose to fumigation for two hours.
Grapefruit	30		
Kumquat	30		
Lemons	30		
Limes	30		
Oranges	30		
Tangeloes	30		
Tangerines	30		
Cocoa Beans	50	1.5	Expose to fumigation in chamber for 12 hours.
Copra	100	2.5	Expose to fumigation for 24 hours.
Corn	50	2.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Cottonseed	200	8.0	Expose to fumigation for 24 hours. Used in connection with pink bollworm quarantine.
Cucumbers	30	2.5	Expose to fumigation for four hours.
Dates		1.0	Expose to fumigation for 24 hours.
Eggplants	20	3.0	Expose to fumigation for four hours.
Figs		1.0	Expose to fumigation for 12 hours.
Flax		3.0	Expose to fumigation for four hours.
Garlic	50	3.0	Expose to fumigation for four hours.
Grain:			
Barley	50	4.0	Expose to fumigation for 12 hours.
Corn	50		
Oats	50	6.0	Expose to fumigation for 12 hours. Used in connection with Khapra beetle quarantine.
Rice	50		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Grain (cont.)		4.0	Expose to fumigation for 12 hours.
Rye	50	6.0	Expose to fumigation for 12 hours. Used
Sorghum (grain)	50		in combination with Khapra beetle quaran-
Wheat	50		tine.
Grapes	20	4.0	Expose to fumigation for two hours.
Guava		2.0	Expose to fumigation for four hours.
Hay			
Alfalfa	50	3.0	Expose to fumigation for 24 hours.
Other leguminous			Aerate thoroughly before feeding.
Nonleguminous		2.5	Expose to fumigation for 24 hours.
			Aerate thoroughly before feeding.
Honey		2.0	Expose to fumigation for 12 hours.
Horseradish	30	3.0	Expose to fumigation for four hours.
Jerusalem artichokes	30	3.5	Expose to fumigation for four hours.
Melons:			
Cantaloupes	20	2.5	Expose to fumigation for two hours.
Honeydew	20		
Muskmelon	20		
Watermelon	20		
Mushrooms		2.0	Expose to fumigation for six hours.
Nuts:			
Almonds	200	3.5	Expose to fumigation for 24 hours.
Brazil nuts	200		
Bush nuts	200		
Butter nuts	200		
Cashews	200		
Chestnuts	200		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Nuts (cont.)			
Filberts	200	3.5	Expose to fumigation for 24 hours.
Hickory nuts	200		
Pecans	200		
Pistacho nuts	200		
Walnuts	200		
Oats	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Okra	30	3.5	Expose to fumigation for two hours. Used in connection with pink bollworm quarantine.
Olives		2.0	Expose to fumigation for six hours.
Onions	20	3.0	Expose to fumigation for six hours.
Parsnips	30	3.0	Expose to fumigation for four hours.
Peanuts	200	3.5	Expose to fumigation for 24 hours.
Peas (with pods)	50	3.0	Expose to fumigation for two hours.
Peas (dried)		4.0	Expose to fumigation for 24 hours.
Peppers	30	4.0	Expose to fumigation for two hours.
Pimentoses	30	2.5	Expose to fumigation for three hours.
Pineapples	20	2.0	Expose to fumigation for four hours.
Pome Fruits:			
Apples	5	5.0	Expose to fumigation for two hours.
Pears	5		
Quinces	5		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Popcorn	240	1.5	Chamber fumigation. Aerate for 24 hours after fumigation. Do not fumigate more than six times unless residue analyses show that additional fumigation will not exceed the residue tolerances established.
Potatoes	75	3.0	Expose to fumigation for six hours.
Pumpkins	20	2.5	Expose to fumigation for two hours.
Radishes	30	3.0	Expose to fumigation for four hours.
Rice	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Rutabagas	30	3.0	Expose to fumigation for six hours.
Rye	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Salsify (roots)	30	3.0	Expose to fumigation for four hours.
Sorghum	50	4.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Spices		3.0	Expose to fumigation for 12 hours.
Squash		4.0	Expose to fumigation for two hours.
Stone Fruits:			
Apricots	20	5.0	Expose to fumigation for two hours.
Cherries	20		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Stone Fruits (cont.)			
Nectarines	20	5.0	Expose to fumigation for two hours.
Peaches	20		
Plums	20		
Prunes	20		
Strawberries	30	2.5	Expose to fumigation for four hours.
		2.5 lbs./actual 1000 sq.ft.	Field treatment of plants under tarpaulins. Expose to fumigation for 1.75-2.75 hours, depending on temperature.
		109 lbs./actual acre	Apply as vaporized gas during dormant season following second or succeeding crop years. Use only on Shasta or Lassen varieties.
		240 lbs./actual acre	Soil application. Expose for 48 hours. Aerate two weeks before setting transplants in treated areas.
Sugarbeets	30	3.0	Expose to fumigation for four hours.
Sweet corn	50	3.0	Expose to fumigation for four hours.
Sweet potatoes	75	3.5	Expose to fumigation for four hours.
Tomatoes	20	3.0	Expose to fumigation for four hours.
		240 lbs./actual acre	Soil application. Expose for 48 hours. Aerate two weeks before setting transplants in treated areas.
Tropical fruits		2.0	Expose to fumigation for four hours.
Turnips	30	3.0	Expose to fumigation for four hours.
Walnuts	200	3.5	Expose to fumigation for 24 hours.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Wheat	50	3.0	Expose to fumigation for 24 hours. Do not fumigate if (1) grain moisture is high, (2) grain temperature is low (below 60°F.), or (3) there is excessive dockage.
Yams	30	3.5	Expose to fumigation for four hours.
Zucchini squash	20	2.5	Expose to fumigation for three hours.
Agricultural Premises:			
Ant colonies		1.0 lb. actual/colony	Apply to individual mounds. Do not apply near fruit trees, etc.
Mushroom houses		2.0	Expose to fumigation for 24 hours when no mushrooms are present.
Plant and seed beds		872.0 lbs. actual/acre	Preplanting soil fumigation. Expose to fumigation for 24 to 48 hours. Aerate for 2-10 days before planting.
Greenhouse plant and transplants		3.0	Expose to fumigation for four hours. Do not fumigate when temperature is higher than 90°F.
Greenhouse, plantbed, cold frame, & raised bench: Soil fumigation		2.0 lbs. actual/100 sq. ft.	Preplanting soil fumigation. Expose to fumigation for 48 hours. Aerate for three days before seeding or seven days before setting transplants.
		1.0 lbs. actual/cu. yd. of loose soil	Preplanting soil fumigation. Expose to fumigation for 24 hours. Aerate for three days before seeding or six days before setting transplants.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL BROMIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as inorganic bromides)	lbs./1000 cu.ft. unless otherwise indicated	
Space Fumigation:			
Barns		3.0	Make structure as gas-tight as possible, and expose to fumigation for 24 hours. Remove all animals prior to application. Aerate thoroughly after fumigation.
Feed rooms			
Grain bins			
Greenhouses			
Poultry houses			
Etc.		5.0	Make structure as gas-tight as possible, and expose to fumigation for 48 hours. Remove all animals prior to fumigation. Used in connection with Khapra beetle quarantine.
Bags			
Boxes		11.0	Expose to fumigation for 24 hours.
Crates (for harvest- ing or storing raw agricul- tural commod- ities)			



## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## METHYL CHLORIDE

PRINCIPAL FORMULATIONS: Aerosol propellant for other toxic ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<u>Commodity</u> <u>Fumigation</u>		lbs./1000 bu.	
Grain:			
Barley		0.5	Do not fumigate grain with a high moisture content or when temperature is below 60°F.
Corn			Aerate grain thoroughly before use. Do not apply to planting seed.
Oats			
Wheat			
Sorghum		0.7	Do not fumigate grain with a high moisture content or when temperature is below 60°F.
			Aerate grain thoroughly before use. Do not apply to planting seed.
Greenhouse Vegetables:			
Cucumbers		1.0 lb./50,000	No time limitations. (Propellant for greenhouse aerosols.)
Lettuce		cu.ft. of green-	
Radishes		house space	
Tomatoes			
Water Cress			

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-METHYL-4-CHLOROPHENOXYACETIC ACID\*

PRINCIPAL FORMULATIONS: 95% technical MCPA. Emulsifiable concentrates containing 25.8%-47% potassium salt; 11.1%-84.78% sodium salt; 27.5%-57% dimethylamine salt; 33.2%-68.66% diethanolamine salts; 57%-69.1% ethanol and isopropanolamine salts; 57% isopropyl and triethylamine salts; 51% liquid.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		0.5	Apply in spring when tops are dormant before active growth starts or immediately after cutting.
Barley		1.5	Postemergence application from tiller to early boot stage. Do not apply during boot to dough stages.
		0.5	Postemergence application from emergence to boot stage.
Beans (red, kidney, snap)		1.0	Preemergence application 2-3 days after planting.
Beans (lima)		1.5	Postemergence. Apply as directed shielded spray when beans are 4-6 inches tall.
Clovers:			
Alsike		0.5	Apply in spring when tops are dormant before active growth starts.
Ladino			
Red			
Clovers:			
Red		0.25	For new stands, apply when two true leaves are present. For established stands, apply in spring or fall before growth is four inches tall. Do not allow meat or dairy animals to graze treated fields. Do not feed crop threshings to livestock.
White			
(seed crop)			
Clovers:			
Crimson		0.13	Apply in early spring before clover starts rapid growth. Do not allow meat or dairy animals to graze treated fields. Do not feed crop threshings to livestock.
Subterranean			

\*MCPA

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-METHYL-4-CHLOROPHENOXYACETIC ACID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn		1.5	Postemergence. Apply after corn is three inches tall to tasseling.
Flax		0.6	Postemergence. Apply when plants are 2-8 inches tall but before bud stage.
Flax (underseeded to clovers, timothy, fescues, bromgrass, & wheat grass)		0.6	Apply as a directed spray when clover and grass seedlings are two inches tall.
Grain:			
Barley		0.5	Apply from tiller to boot stage (4-10 inches tall) and when legumes are 2-3 inches tall.
Corn			
Oats			
Rice			
Rye			
Sorghum			
Wheat (underseeded to alfalfa, clover, lespedeza, and vetch)			
Oats		1.5	Postemergence. Apply from full tiller to boot stage. Do not spray oats during boot to dough stage.
		0.5	Postemergence application from emergence to boot stage.
Pastures (established)		2.0	Apply when weeds are actively growing. When clover and alfalfa are present, reduce rate to 0.25 pounds.
Peas (canning and freezing)		0.75	Postemergence. Apply when peas are 3-10 inches tall or when Canada thistle buds appear. Do not apply during blooming period.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-METHYL-4-CHLOROPHENOXYACETIC ACID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Rice		1.5	Postemergence. Apply when rice is full tillered and 6-8 inches above water (55-65 days after planting). Do not spray after rice is in boot stage.
Rye		1.5	Postemergence. Apply from tiller to early boot stage. Do not apply during boot to dough stage.
Sorghum		0.75	Postemergence application when sorghum is six inches tall and before tasseling.
Soybeans		1.0	Preemergence application 2-3 days after planting.
Wheat		1.5	Postemergence application. Apply from tiller to early boot stage. Do not apply during boot to dough stages.
		0.5	Postemergence application from emergence to boot stage.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

4 (2-METHYL-4-CHLOROPHENOXY) BUTYRIC ACID\*

PRINCIPAL FORMULATIONS: 23.5% sodium salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peas		lbs. acid equiv. per acre  1.5	Apply as an overall spray when crop has 6-12 nodes and before flower buds form.

\*Proprietary Name: 4 (MCPB)

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## METHYL CHLOROTHYMOL

PRINCIPAL FORMULATIONS: With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Sheep Swine</p>		3.0%	Formulated with other ingredients and applied locally as a screwworm or ear tick remedy.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL FORMATE

PRINCIPAL FORMULATIONS: Formulated with CO<sub>2</sub> to reduce flammability

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<u>Commodity</u> <u>Fumigation</u>  Nuts:  Almonds Cashews Chestnuts Filberts Hazelnuts Hickory Nuts Pecans Walnuts		lbs./1000 cu.ft.   4.5	Expose to fumigation for 24 hours in tight fumigation chamber.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL ISOTHIOCYANATE

PRINCIPAL FORMULATIONS: 20.0% liquid with other soil fumigants

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
All Crops		lbs. Actual/A. 104 (on light soil) 132 (on heavy soil)	Preplanting soil treatment. Expose to fumigation for four days and aerate for an additional seven days for each 23 pounds/acre used.
Deep rooted tree crops		152	Preplanting application primarily for citrus or where deep penetration is required. Exposed fumigation for four days and aerate for an additional seven days for each 23 lbs./acre applied.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY BENZOATE

PRINCIPAL FORMULATIONS: 2.5% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		fl.oz. actual per bushel	
Barley		0.0125	Seed treatment. Do not use treated seed for food, feed, or oil.
Oats		0.0125	Seed treatment. Do not use treated seed for food, feed, or oil.
Sorghum		0.0125	Seed treatment. Do not use treated seed for food, feed, or oil.
Wheat		0.0125	Seed treatment. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY 2,3-DIHYDROXY PROPYL MERCAPTIDE (I)  
PLUS METHYL MERCURY ACETATE (II)

PRINCIPAL FORMULATIONS: 5.78% of (I) + 1.24% of (II); 2.8% of (I) + 0.62% of (II)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		5.78% of (I) + 1.24% of (II) formulation 1/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Cotton			
Fuzzy		1 3/4 oz./100 lbs.	Do not use for food, feed, or oil purposes. Seed treatment.
Reginned		1 1/4 oz./100 lbs.	Do not use for food, feed, or oil purposes. Seed treatment.
Acid delinted		1 oz./100 lbs.	Do not use for food, feed, or oil purposes. Seed treatment.
Flax		3/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Millet		1/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Oats		1/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Rice		1/2 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Safflower		3/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Rye		1/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Sorghum		1/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.
Wheat		1/4 oz./bu.	Do not use for food, feed, or oil purposes. Seed treatment.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY HYDROXIDE

PRINCIPAL FORMULATIONS: 4.9% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual/bu.	
Barley		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cottonseed			
Acid delinted		0.5	Seed treatment only. Do not use treated seed for food, feed, or oil.
Machine delinted		0.3	Seed treatment only. Do not use treated seed for food, feed, or oil.
Fuzzy		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		0.75	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rice		0.25	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		0.38	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY-8-HYDROXYQUINOLINATE

PRINCIPAL FORMULATIONS: 2.25%, 2.7%, 2.4%, 7.5%, 10.2% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual	
Apples		8 oz./A.	Petal fall.
Barley		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Cottonseed			
Reginned		0.068/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Acid delinted		0.045/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Flax		0.034/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Milo		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Oats		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Peanuts (shelled)		0.045/100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Rice		0.011/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Sorghum		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Wheat		0.017/bu.	Seed treatment. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY NITRILE

PRINCIPAL FORMULATIONS: 1.85%, 2.75%, 5.41% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		fluid oz.act.	
Barley		0.014/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cottonseed			
Fuzzy		0.084/100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Reginned		0.084/100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Acid delinted		0.084/100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		0.042/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Oats		0.014/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rice		0.014/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rye		0.014/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		0.014/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Wheat		0.014/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL MERCURY PROPIONATE

PRINCIPAL FORMULATIONS: 1.82% slurry seed treatment

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz. actual/bu.	
Barley		.014	Seed treatment only. Do not use treated seed for food, feed or oil.
Flax		.028	Seed treatment only. Do not use treated seed for feed, food or oil.
Oats		.014	Seed treatment only. Do not use treated seed for food, feed or oil.
Wheat		.014	Seed treatment only. Do not use treated seed for food, feed or oil.





# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## METHYL PARATHION\*

PRINCIPAL FORMULATIONS: Emulsifiable concentrate containing two pounds per gallon;  
1% and 2.5% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Alfalfa		1.0	15 days.
		1.25	20 days.
Apples	1	6.0	14 days.
Artichokes	1	1.0	7 days.
Barley		0.75	15 days.
		0.25	No time limitations.
Beans (dry)	1	1.5	15 days.
Beans (green)	1	1.5	21 days.
Beets	1	1.0	15 days (21 days if tops are to be used as food).
Broccoli	1	1.5	21 days.
Brussels Sprouts	1	1.5	21 days.
Cabbage	1	1.5	21 days.
Carrots	1	1.0	15 days.
Cauliflower	1	1.5	21 days.
Celery	1	1.0	15 days.
Clover	1	1.0	15 days.
		1.25	20 days.
Collards	1	1.5	21 days.
Corn	1	0.25	12 days.

\*O,O-dimethyl O-p-nitrophenyl phosphorothioate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Cotton		3.0	Do not apply within five days of hand picking. (Workers entering fields within 24 hours after application should wear protective clothing).
Grapes	1	0.75	14 days.
Hops		1.0	15 days.
Kale	1	1.5	21 days.
Kohlrabi	1	1.5	21 days.
Lettuce	1	1.0	21 days.
Mustard	1	1.5	21 days.
Oats		0.75	15 days.
		0.25	No time limitations.
Peaches	1	4.0	14 days.
Pears	1	3.0	14 days.
Peas	1	1.0	15 days.
		0.25	10 days.
Peppers	1	1.0	15 days.
Plums	1	4.0	14 days.
Potatoes		1.5	5 days.
Rice		0.75	15 days.
Rutabagas	1	1.5	21 days.
Rye		0.75	15 days.
		0.25	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYL PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Safflower		0.5	Do not apply after flowering.
Soybeans		1.0	20 days.
Spinach	1	1.0	21 days.
Strawberries	1	0.75	14 days.
Sugarbeets		0.375	20 days. 60 days if tops are to be fed to livestock.
Sweet potatoes		0.75	5 days.
Tomatoes	1	1.5	15 days.
Turnips	1	0.8	15 days. 21 days if tops are to be used as food or feed. Foliage treatment.
Vetch		1.0	15 days.
		1.25	20 days.
Wheat		0.75	15 days.
		0.25	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

6-METHYL-2,3-QUINOXALINEDITHIOL CYCLIC CARBONATE\*

PRINCIPAL FORMULATIONS: 25% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs.actual/A.	
Apples		4.5	Do not apply after first bloom.
		3.0	35 days. Do not apply more than 3 times per season.
Apricots		3	Do not apply after first bloom.
Cherries		3	Do not apply after first bloom.
Nectarines		3	Do not apply after first bloom.
Peaches		3.0	Do not apply after first bloom.
Pears		4.5	Do not apply after first bloom.
		3.0	35 days. Do not apply more than 3 timer per season.
Plums		3	Do not apply after first bloom.
Prunes		3	Do not apply after first bloom.

\*Proprietary Name: "Morestan"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYLENE CHLORIDE

PRINCIPAL FORMULATIONS: 49.4% and 50.6% liquid (used with 1,1,1-trichloroethane)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Citrus Fruits:		lbs./1000 cu.ft.	
Grapefruit	Exempt	2.7	Degreening, with ethylene gas. Apply
Kumquats	Exempt	(2 quarts)	metered dosage over 24-hour period.
Lemons	Exempt		Exposure should not exceed 72 hours.
Limes	Exempt		Aerate by fan for 12 hours.
Oranges	Exempt		
Tangeloes	Exempt		
Tangerines	Exempt		
Strawberries	Exempt	3.5	Post-harvest fumigation. Expose to
			fumigation for 24 hours. Aerate thor-
			oughly until odor has left strawberries.
		gals./1000 bu.	
<u>Commodity</u> <u>Fumigation</u>			
Grain:			
Barley	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.
Corn	Exempt	0.6	Aerate thoroughly after fumigation until
			all odor has left grain.
Oats	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.
Popcorn	Exempt	0.6	Aerate thoroughly after fumigation until
			all odor has left grain.
Rice	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.
Rye	Exempt	0.375	Aerate thoroughly after fumigation until
			all odor has left grain.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

METHYLENE CHLORIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain (cont.)		gals./1000 bu.	
Sorghum	Exempt	0.6	Aerate thoroughly after fumigation until all odor has left grain.
Wheat	Exempt	0.375	Aerate thoroughly after fumigation until all odor has left grain.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,2'-METHYLENEBIS (3,4,6,-TRICHLOROPHENOL)\*

PRINCIPAL FORMULATIONS: 25% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beans (snap)		lbs. actual/A.	
		0.3	Preemergence and post-emergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Cabbage		1.0	Preemergence and post-emergence seedbed treatment only. Do not apply after seedling stage.
		0.3	Preemergence and post-emergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Celery		1.0	Preemergence and post-emergence seedbed treatment only. Do not apply after seedling stage.
		0.3	Preemergence and post-emergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Citrus Fruits		1.0	Preemergence and post-emergence seedbed treatment only. Do not apply after seedling stage.
		0.3	Preemergence and post-emergence drench in seed row areas until plants are established. Do not feed treated foliage to livestock.
Cotton		2.5	5 days.
Cucumbers		0.25	Apply to furrow at time of planting or as a post-emergence soil treatment. Do not apply after bolls open.
		0.375	3 days.
Peaches		0.19 lbs./100 gals. of water	Do not apply to bearing trees after shuck-fall.
Peppers		1.0	Preemergence application.
		0.375	5 days.
Potatoes		0.19 lbs./100 gals. of water	Do not apply to harvested potatoes.

\*Coined non-proprietary name: "Hexachlorophene"

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2,2'-METHYLENEBIS (3,4,6-TRICHLOROPHENOL)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Tomatoes		0.375	5 days.
		1.0	Preemergence application.
Watermelons		0.3	Preemergence and post-emergence drench in seed row areas until plants are established. Do not feed treated foliate to livestock.
		1.0	Preemergence and post-emergence seedbed treatment only. Do not apply after seedling stage.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## MINERAL OIL\*

**PRINCIPAL FORMULATIONS:** Liquids and smears containing 20%-73% oil with other insecticidal ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn (shelled)	200	2.0 qts./ 100 sq. ft. or 5.0 qts./ circular 3300 bu. bin	Post-harvest application. Apply to surface layer of stored grain. (Mineral oil must meet specifications published in Federal Register, Dec. 12, 1956.)
Grain Sorghum	200	2.0 qts./ 100 sq. ft. or 5.0 qts./ circular 3300 bu. bin	Post-harvest application. Apply to surface layer of stored grain. (Mineral oil must meet specifications published in Federal Register, Dec. 12, 1956.)
Animals:			
Beef Cattle		73.0%	Apply liberally as a spot treatment to wounds, cuts, and abrasions. Formulated with other ingredients.
Dairy Cattle			
Goats			
Sheep			
Swine			

\*Also see "Summer Oils," "Dormant Oils," and "Petroleum Solvents"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

MONO-CALCIUM ARSENITE

PRINCIPAL FORMULATIONS: 80% powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Apricots		6.0	Dormant application two weeks before buds break.
Cherries		4.8	Dormant application two weeks before buds break.
Peaches		2.0	Delayed dormant application.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MONOSODIUM ACID METHANEARSONATE

PRINCIPAL FORMULATIONS: 50.6% liquid containing 6.6 lbs./gal.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A.  2.0	Postemergence application. Apply 1-2 directed sprays to weeds when cotton is 3-4 inches tall. Keep spray off cotton foliage. Do not apply after first bloom. Do not graze or feed forage from treated areas to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MONURON\*

PRINCIPAL FORMULATIONS: 80% wettable powder; 21.3%, 16.0%, 10.7% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Asparagus	7	3.2	Apply once during period from four weeks before spear appear to early cutting period or following last cultivation. Second application immediately after harvest. Total dosage not to exceed six pounds per acre for season.
Avocadoes	1	3.2	Single application per year in late fall or early winter under well established trees. Do not spray fruit or foliage.
		1.6	Split applications in late fall and spring under well established trees. Do not spray fruit or foliage.
Citrus Groves:			
Oranges	1	3.2	Single application per year in late fall or early winter under well established trees. Do not spray fruit or foliage.
Lemons	1		
		1.6	Split applications in late fall and spring under well established trees. Do not spray fruit or foliage.
Cotton	1 (cotton seed)	1.2	Apply immediately after last cultivation. (When cotton is at least 20 inches high). Irrigate within 3-4 days after application. Do not plant crops other than cotton, corn, or grain sorghum next spring following treatment.
		1.6	Preemergence soil application. (Apply to heavy clay soil only).
Cropland (undesignated)		70.0 (1.6 lbs./1000 sq. ft.)	Spot treatment. Keep treated areas out of crop production for three or more years.

\*3-(p-chlorophenyl)-1,1-dimethylurea

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MONURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes	1	3.2	Use in established vineyards (at least three years old). Apply in spring (after May 1).
Onions	1 (dry bulbs)	1.6	Preemergence application two days before onions emerge. or Postemergence application when onions have 1-2 leaves. Repeat application as directed basal spray after last cultivation (at lay-by).
Peppermint		2.4	Preemergence application after last cultivation to established stands (at least one year old).
Pineapple	1	6.4	Apply immediately after planting.
		1.6	Postemergence of plant crop. Apply overall at two or more month intervals and before differentiation and interrow as needed. Do not apply more than 12.8 pounds per acre per plant crop.
		3.2	Apply after harvesting of plant crop.
Spinach	1	1.2	Preemergence application at time of planting.
Sugarcane	1	4.8	Apply after planting, or after harvesting of plant crop (for ratoon or stubble crop). Repeat with two interrow directed sprays. Do not exceed eight pounds between planting and harvesting in Hawaii or 4.8 pounds in Florida.
		4.0	Tassel reduction; apply between September 5-15 to crops planted or ratooned prior to July 1 of same year.
		3.0	Make single application in fall after planting and before cane emerges; or in spring after shaving and off-barring before cane emerges, or as directed spray if cane has emerged.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

MONURON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Irrigation and drainage ditches		lbs. actual/A.  80	Apply during noncrop season and when ditch is not in use. Waste first water after treatment before irrigating crops.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\*

PRINCIPAL FORMULATIONS: 18%, 19%, and 22% liquids

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		1 1/2 pts./100 gals	No time limitations.
Beans		2 qts./100 gals.	No time limitations.
Cabbage		1 qt./65 gals.	No time limitations.
Celery		2 qts./100 gals.	No time limitations.
Cotton		5 qts./10-20 gals. per acre	Apply to seed, furrow and soil at planting time.
Cucumbers		2 qts./100 gals.	No time limitations.
Cucurbits		2 qts./100 gals	No time limitations.
Eggplant		2 qts./100 gals.	No time limitations.
Grapes		2 qts./100 gals	No time limitations.
Melons		2 qts./100 gals.	No time limitations.
Onions		2 qts./100 gals.	No time limitations.
		2.2 lbs. actual/ acre	Seed treatment or soil treatment at time of planting.
Peppers		2 qts./100 gals.	No time limitations.
Potatoes		1 gal. 19% liquid in 30 gals. water	Seed piece dip. Plant immediately after drying.
		2 qts./100 gals.	No time limitations.
Squash		2 qts./100 gals.	No time limitations.
Tomatoes		2 qts./100 gals	No time limitations.

\*Disodium ethylene bisdithiocarbamate

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\* (II)

PRINCIPAL FORMULATIONS: 38% and 42% liquids. Formulation not used alone, but is used in tank mix preparations by reaction of zinc sulfate to form zineb.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Citrus Fruits:	(as zineb)		
Grapefruit	7	3 qts. + 2.5 lbs.	Two applications at rate of 10 gallons per tree at 4-6 week intervals between July 1 and August 15.
Kumquats	7	zinc sulfate/	
Lemons	7	500 gals.	
Limes	7		
Oranges	7		
Tangeloes	7		
Tangerines	7		
Cotton		2 qts./10 gals.	Apply to the furrow at planting time.
Lettuce	25	1 qt. + 3/4 lb. zinc sulfate/ 50 gals.	Plant bed treatment only. Apply weekly as a soil drench.
Celery	7	1 qt. + 3/4 lb. zinc sulfate/ 100 gals.	No time limitations. Remove residues by stripping, trimming, and washing.
Mushrooms	7	1 qt. + 3/4 lb. zinc sulfate/ 100 gals.	Apply to casing soil between "breaks".
Onions	7	1 qt. + 3/4 lb. zinc sulfate/ 100 gals.	7 days on green onions.
Peppers	7	1 qt. + 3/4 lb. zinc sulfate/ 100 gals.	Plant bed use only. Apply weekly as a soil drench.
Potatoes		1 qt. + 3/4 lb. zinc sulfate/ 100 gals.	No time limitations.
Tomatoes	7	1 qt. + 3/4 lb. zinc sulfate/ 100 gals.	No time limitations.

\*Disodium ethylene bisdithiocarbamate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\* (III)

PRINCIPAL FORMULATIONS: 19% liquid plus 70% ferric sulfate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	(as ferbam)	1.5 pt. - 1 qt. plus 5 oz. ferric sulfate/100 gals	7 days.

\*Disodium ethylene bisdithiocarbamate

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\* (IV)

PRINCIPAL FORMULATIONS: Liquids plus mineral salts (zinc sulfate 11.0%; ferric sulfate 5.0%; manganese sulfate 4.0%).

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Almond	0.1 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Jacket fall.
	0.1 (as maneb)		
Apples	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	7 days.
	7 (as zineb)		
	7 (as maneb)		
Apricots	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall.
	7 (as zineb)		
	7 (as maneb)		
Cherries	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall.
	7 (as zineb)		
Grapes	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Do not apply after shoots are 8-12 inches long.
	7 (as zineb)		
	7 (as maneb)		

\*Disodium ethylene bisdithiocarbamate

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\* (IV)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Nectarines	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall.
	7 (as zineb)		
	10 (as maneb)		
Peaches	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall to jacket fall.
	7 (as zineb)		
	10 (as maneb)		
Pears	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall.
	7 (as zineb)		
Plums	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall.
	7 (as zineb)		
Prunes	7 (as ferbam)	2 qts. plus 1 lb. mineral salts per 100 gals.	Petal fall.
	7 (as zineb)		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\* (V)

PRINCIPAL FORMULATIONS: 19% liquid plus 75% manganese sulfate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as maneb)		
Beans	7	2 qts. + 1 lb. manganese sulfate 100 gals.	4 days of picking on string beans.
Cabbage	10	2 qts. + 1 lb. manganese sulfate 100 gals.	7 days.
Carrot	7	2 qts. + 1 lb. manganese sulfate 100 gals.	No time limitations.
Celery	7	2 qts. + 1 lb. manganese sulfate 100 gals.	Remove excess residues by stripping, trimming and washing.
Corn, sweet	7	2 qts. + 1 lb. manganese sulfate 100 gals.	Do not feed treated forage to livestock.
Cucurbits	7	2 qts. + 1 lb. manganese sulfate 100 gals.	No time limitations.
Eggplant	7	2 qts. + 1 lb. manganese sulfate 100 gals.	No time limitations.
Onions	7	2 qts. + 1 lb. manganese sulfate 100 gals.	No time limitations.
Potatoes	0.1	2 qts. + 1 lb. manganese sulfate 100 gals.	No time limitations.
Sugar beets		2 qts. + 1 lb. manganese sulfate 100 gals.	30 days. Do not feed treated tops to livestock.

\*Disodium ethylene bisdithiocarbamate

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## USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM (V)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes	(as maneb)  7	2 qts. + 1 lb. manganese sulfate 100 gals.	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM\* (VI)

PRINCIPAL FORMULATIONS: 18%, 19%, and 22% liquids plus 36% zinc sulfate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zineb)		
Apples	7	1.5 pts. - 1 qt. plus 1/3 lb. zinc sulfate/100 gals.	No time limitations.
Asparagus		2 qts. + 3/4 lb. zinc sulfate per 100 gals.	Postharvest application.
Beans (string and lima)	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Beets	7 (roots) 25 (tops)	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days if tops are to be used for food or feed.
Broccoli	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Cabbage	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Cantaloupes	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Carrots	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days if tops are to be used for food or feed.
Cauliflower	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Celery	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	Remove excessive residues by stripping, trimming, and washing.

\*Disodium ethylene bisdithiocarbamate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM (VI)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zineb)		
Cherries	7	1 qt. + 8 oz. zinc sulfate per 100 gals.	7 days.
Corn	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Cotton		1 gal. + 1.5 lbs. zinc sulfate per 10 gals.	Apply in row at planting time.
Cucumbers	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Cucurbits	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days on summer squash.
Eggplant	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Grapes	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Hops	60	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	14 days.
Kale	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Lettuce	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days on leaf lettuce; 5 days on head lettuce.
Melons	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM (VI)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zineb)		
Mushrooms	7	1 qt. + 3/4 lb. zinc sulfate per 100 gals.	Apply to soil between "breaks".
Mustard Greens	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Onions	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days on green onions.
Pecans		2 qts. + 3/4 lb. zinc sulfate per 100 gals.	45 days.
Peppers	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Potatoes		2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
		1 pt. + 3 oz. zinc sulfate per 30 gals.	Dip whole or cut seed pieces.
Pumpkins	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Spinach	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Squash	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days on summer squash
Strawberries	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days of picking.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## NABAM (VI)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as zineb)		
Sugarbeets		2 qts. + 1 lb. zinc sulfate 100 gals. Use 75-125 gals/A.	30 days. Do not feed treated tops to dairy animals or livestock.
Swiss Chard	25	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days.
Tomatoes	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Turnips	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	7 days if tops are to be used for food or feed.
Watermelons	7	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	No time limitations.
Wheat	1	2 qts. + 3/4 lb. zinc sulfate per 100 gals.	3-4 weeks.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM VII\*

PRINCIPAL FORMULATIONS: 93% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
NOTE: Usual dilution is 100 gal. water for each 1 to 1½ lb. of 93% Nabam wettable powder. For each lb. of Nabam 93% powder mix one of the following:			
a. ¾ lb. zinc sulfate (36% zinc) b. 1 ¼ lb. zinc sulfate (22.8% zinc) c. 1 lb. zinc iron manganese sulfate mix d. 5 oz. zinc sulfate (36% zinc) and 4 oz. ferric sulfate (20% Fe)			
	ppm as Zineb, Maneb, or Ferbam	lbs. 93% w.p./ acre plus mix	
Almonds		8 + c	Jacket stage.
Apple	7	8 + c	7 days.
Apricot	7	6 + c	Jacket stage.
Bean Lima Snap	7	2 + a or b	7 days.
Beets	7	2 + a or b	7 days.
Broccoli	7	2 + a or b	7 days.
Cabbage	7	2 + a or b	7 days.
Cantaloupe	7	2 + a or b	No time limitations.
Carrot	7	2 + a or b	7 days if tops are to be used for food or feed.
Cauliflower	7	2 + a or b	7 days.
Celery	7	2 + a or b	Remove residues by washing and stripping.
Cherry (sour)	7	2.5 + a or b	7 days.

\*Disodium ethylene bis dithio carbamate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM VII

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	ppm as Zineb, Maneb, or Ferbam	lbs. 93% w.p./ acre plus mix	
Cherry	7	6 + c	California only. Jacket stage.
Citrus	7	2.5/500 gal. water plus 2 lbs. zinc sulfate (36% zinc)	7 days.
Corn	7	2 + a or b	No time limitations. Do not feed treated forage to animals.
Cotton		4 + a or b	In furrow at planting time using 10-20 gal. water per acre.
Cucumber	7	2 + a or b	No time limitations.
Grape	7	3 + a or b	7 days.
Hops	60	2 + a or b	14 days.
Kale	25	2 + a or b	7 days.
Lettuce	25	2 + a or b	5 days on head lettuce. 7 days on leaf lettuce.
Macadamia nuts		8 + d	No time limitations.
Mustard greens	25	2 + a or b	7 days.
Nectarines	7	6 + c	Jacket stage.
Onion	7	2 + a or b	7 days on green onions.
Peach	7	6 + c	Jacket stage.
Pear	7	8 + c	Petal fall.
Pecan		15 + a or b	45 days of harvest.
Pineapples		14 + d	Do not apply after fruit buds form.
Plum (prune)	7	6 + c	Jacket stage.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NABAM VII

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	ppm as Zineb, Maneb, or Ferbam	lbs. 93% w.p./ acre plus mix	
Potato		2 + a or b	No time limitation. Foliage application only.
Potato seed treatment		0.25 lb./30 gal. water plus 3 oz. 36% zinc sulfate	Do not use treated seed pieces for food or feed.
Spinach	25	2 + a or b	7 days.
Squash (summer)	7	2 + a or b	7 days.
Strawberry	7	2 + a or b	Apply before fruit forms and after harvest.
Swiss chard	25	2 + a or b	7 days.
Tomato	7	2 + a or b	No time limitations.
Turnip	7	2 + a or b	7 days.
Watermelon	7	2 + a or b	No time limitations.
Wheat	1	2 + a or b	Milk stage.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

NALED

**PRINCIPAL FORMULATIONS:** 4% dust; emulsifiable concentrate containing 8 lbs. of active ingredient per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		2.0	4 days.
Apricots		8.0	4 days.
Beans (dry, lima, green)		2.0	4 days.
Broccoli		2.0	4 days.
Brussels sprouts		2.0	4 days.
Cabbage		2.0	4 days.
Cauliflower		2.0	4 days.
Celery		2.0	4 days.
Chard		2.0	4 days.
Clover		2.0	4 days.
Collards		2.0	4 days.
Cotton		1.4	Do not apply within 4 days of handpicking.
Cucumbers		1.5	4 days.
Cucumbers (greenhouse)		1.0 oz./ 10,000 cu.ft.	1 day.
Eggplants		2.0	4 days.
Endive		2.0	4 days.
Filberts		10.0	10 days.
Grain sorghum		1.0	4 days.
Grapefruit		20.0	7 days.

1,2-DIBROMO-2,2-DICHLOROETHYL DIMETHYL PHOSPHATE

Proprietary name: "Dibrom"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

NALED

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes		1.0 (spray)	4 days.
		2.0 (dust)	
Hops		1.0	4 days.
Kale		2.0	4 days.
Lemons		20.0	7 days.
		4.0 oz./ 100,000 cu. ft.	Postharvest fumigation. Do not apply within 7 days of shipment.
Lettuce		2.0	4 days.
Melons		4.0	7 days.
Mustard greens		2.0	4 days.
Nectarines		8.0	4 days.
Onions (bulbs only)		0.5	4 days.
Oranges		20.0	7 days.
Pastures & Rangeland		0.25	No limitations.
		1.0	Do not cut for hay to be sold commercially or shipped interstate within 4 days after application.
Peaches		8.0	4 days.
Peas		2.0	4 days.
Peppers		2.0	4 days.
Plums		8.0	4 days.
Potatoes		1.0	No time limitations.
Prunes		8.0	4 days.
Pumpkins		4.0	7 days.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## NALED

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Soybeans		2.0	4 days.
Spinach		2.0	4 days.
Squash (summer)		1.5	4 days.
Squash (winter)		4.0	7 days.
Strawberries		1.0 (spray) 2.0 (dust)	4 days.
Sugar beets		1.0	5 days.
Tangerines		20.0	7 days.
Tomatoes		1.0	4 days.
Tomatoes (greenhouse)		1.0 oz./ 10,000 cu. ft.	1 day.
Turnips (tops & roots)		2.0	4 days.
Vetch		2.0	4 days.
Walnuts		10.0	10 days.
Animals:			
Poultry Chickens Pheasants Turkeys		0.3% in water	Apply as a light mist spray to entire bird except head. Apply at the rate of one gallon per 100 birds. Concentrate application under wings and around tail area. Do not apply to chickens under 6 weeks of age or to turkeys under 3 months of age. Repeat application as necessary.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

NALED

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. actual/A.	
Barns		1.5% in oil or water	Apply as a space spray or liberally as a surface spray. Do not apply in milk rooms. Do not contaminate feed, food, or drinking water. Do not apply when dairy cattle or poultry are in building.
Dairy barns		0.3% in oil or water	Apply as a space spray or liberally as a surface spray. Do not apply in milk rooms. Do not contaminate feed, food, or drinking water. May be applied when dairy animals are present, but do not apply to dairy animals. May be applied when poultry are in building.
Grain bins		1.0% (in oil)	Apply as a finely atomized spray around and above animals but not directly to animals. Particle size is not smaller than 30 microns. Do not apply in milk processing rooms.
Poultry houses		1.0% (in oil)	Apply as a fog spray at the rate of 1 oz./3,000 cu. ft. of space, with all doors and windows closed. Apply around and above animals but not directly to animals.
Other farm buildings		0.5% liquid bait	Apply by brushing or spraying, to selected surfaces where flies congregate. Do not contaminate milk, milk handling equipment, feed, or drinking water.
Dairy barns		0.5% dry bait	Apply freely to floors, window sills, and surfaces where flies congregate. Do not contaminate milk, milk handling equipment, feed, or drinking water.
Same as above plus milk rooms		0.3% in water	Apply as a spray to roosts, perches, walls, nests, and other areas at the rate of one gallon per 500 sq. ft. of surface. Birds need not be removed during application.
Poultry houses		0.25	No time limitations.
Poultry pens			
Poultry cages			
Poultry coops			
Feed lots			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NAPHTHALENE

PRINCIPAL FORMULATIONS: 100% crystals

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:			
Beef Cattle		0.5% in oil	Apply 2.0 oz. per animal and rub well into hair. Formulated with other ingredients.
Dairy Cattle			
Goats			
Sheep		35.0% powder	Apply liberally to animal and brush well into hair. Formulated with other ingredients.
Swine			
		10.0%	Apply as a spot treatment to cuts, scratches, and abrasions for control of screwworms. Formulated with other ingredients.
Chickens (in laying cages)		20% tablets	Place two tablets (4 grams each) in special holder under center of floor of each cage. Replace tablets as necessary.
Poultry		100.0% nest egg	Place nest egg in nest for control of lice. May cause off flavors in eggs and meat.
		35.0% powder	Apply liberally to birds and rub well into feathers. Dilute with equal parts of wood ashes for young birds. Formulated with other ingredients.
Agricultural Premises:			
Farrowing Houses		55.0% powder	Thoroughly clean premises and apply powder liberally to all surfaces and bedding.
Hog Pens			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NAPHTHALENE ACETIC ACID

PRINCIPAL FORMULATIONS: 1.0%-20.8% liquids; 35.0% wettable powder; 0.2% dust; 24.3% liquid potassium salt; 3.5% soluble powder (sodium salt); 5.68% and 21.4% liquid ammonium salt; 98% sodium

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	1	20 ppm or 35 grams/acre	For chemical thinning, apply spray to fruit 14-21 days after calyx period. May be reduced to 5 ppm using Tween 20 on some varieties.
		48 grams/A. (concentrated spray)	Preharvest drop. Apply spray to fruit 7-14 days before harvest. Do not make more than 2 applications. Do not apply within 2 days of harvest.
Olives		150 ppm (spray)	For chemical thinning. Apply when fruit is 1/8 to 3/16 inch in diameter, 1½ to 2½ weeks after full bloom.
Pears		10 ppm or 25 grams/acre	Preharvest drop. Apply to fruit 5-7 days before harvest. Do not make more than 2 applications. Do not apply within 2 days of harvest.
Pineapples		25 grams/acre (spray)	Flower induction. Do not apply more than twice. Do not apply within 1 month of first picking.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NAPHTHYLACETAMIDE

PRINCIPAL FORMULATIONS: 8.4% wettable powder; 2.3% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		50 ppm (85 grams)/A.	Chemical thinning. Use up to 400 gallons spray per acre. Apply single application at petalfall or no later than 2 1/2 weeks after bloom.
Pears (Bartlett and Bosc)		50 ppm (85 grams)/A.	Chemical thinning. Make single application to petal fall or within 5-7 days after petal fall. Use up to 400 gals. of spray per acre.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## N-1 NAPHTHYL PHTHALAMIC ACID\*

PRINCIPAL FORMULATIONS: 90% wettable powder; 23.7% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Asparagus:			
Seed beds		7.2	Preemergence use only. Apply within 48 hours after seeding.
Established beds		7.2	Apply within 48 hours after first spring discing. Repeat after cultivation following cutting season.
Cantaloupe		5.4	Preemergence application within 48 hours after seeding.
		3.6	Postemergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.
Cranberries		8.0	Dormant application as an overall spray before bud break (April to May) to established crop.
Cucumber		5.4	Preemergence application within 48 hours after seeding.
		3.6	Postemergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.
Muskmelon		5.4	Preemergence application within 48 hours after seeding.
		3.6	Postemergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.
Pumpkins		3.6	Preemergence application within 48 hours after seeding.

\*NPA

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## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## N-1 NAPHTHYL PHTHALAMIC ACID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Squash		lbs. actual/A. 3.6	Preemergence application within 48 hours after seeding.
Watermelon		5.4	Preemergence application within 48 hours after seeding.
		3.6	Postemergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## N-1 NAPHTHYL PHTHALAMIC ACID (SODIUM SALT)\*

PRINCIPAL FORMULATIONS: 16.0% and 23.7% liquids; 30% wettable powder;  
10.8% and 21.5% granular formulations

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Asparagus:			
Seed Beds		8	Preemergence application within 48 hours of seeding.
Established Beds		8	Apply within 48 hours after first spring disking. Repeat after cultivation following cutting season.
Cantaloupes		8	Preemergence application within 48 hours of seeding.
		6	Post-emergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.
Cotton (irrigated)		8	Preemergence application. Follow treatment with irrigation.
Arizona			
California		6	Post-emergence application as directed spray when cotton is 10 inches high and repeat at lay-by.
New Mexico			
West Texas			
Cucumbers		6	Preemergence application within 48 hours of seeding.
		6	Post-emergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.
Muskmelons		6	Preemergence application within 48 hours of seeding. or Post-emergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.

\*NPA, Sodium Salt

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-1 NAPHTHYL PHTHALAMIC ACID (SODIUM SALT)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peaches		575 grams/acre (375 ppm)	For chemical thinning, apply 1-5 days after full bloom, using 2½-5 gallons per tree, or 450 gallons per acre.
Peanuts		8	Preemergence application immediately after seeding.
		3.0	Apply at cracking time (5-7 days after planting) to first true leaves.
Potatoes		4	Post-emergence application as a post-hilling treatment, or lay-by.
Pumpkins		4	Pre-emergence application within 48 hours of seeding.
Soybeans		8	Preemergence application immediately after planting. Do not apply where seeds are exposed, or shallow-planted (less than 1½ inches deep).
Squash		4	Preemergence application within 48 hours of seeding.
Sweet Potatoes		4.86	Apply broadcast or in bands centered on rows at time of setting plants in field or immediately after last cultivation.
Watermelons		8	Preemergence application within 48 hours of seeding.
		6	Post-emergence application immediately after transplanting or just before vining (one month after planting) and before weeds emerge.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-1 NAPHTHYL PHTHALIMIDE\*

PRINCIPAL FORMULATIONS: 90.0% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sweet Potatoes		lbs. Actual/A.  3.6	Apply immediately after planting slips, or immediately after the last cultivation (lay-by).

\*NPA, amide form

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

NEBURON\*

PRINCIPAL FORMULATIONS: 50% wettable powder; 4% granular formulation

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		lbs. actual/A. 4.0	Apply to soil on rows 2 weeks after transplanting but before vining begins. (Apply between rows no later than lay-by and before fruit forms.) Do not treat fields which may be replanted to any other crop within one year. Make only one application per season.

\*1-n-butyl-3-(3,4-dichlorophenyl)-1-methylurea

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## NICOTINE SULFATE

PRINCIPAL FORMULATIONS: 40% aqueous solution (nicotine)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bush & Vine Fruits:			
Blackberries	2	2.0	No time limitations.
Blueberries			
Boysenberries			
Cranberries	2		
Currants	2		
Dewberries			
Gooseberries	2		
Grapes	2		
Huckleberries			
Loganberries	2		
Raspberries	2		
Strawberries	2		
Youngberries			
Citrus Fruits:			
Citrus Citron	2	9.4	No time limitations.
Grapefruit	2		
Kumquats	2		
Lemons	2		
Limes	2		
Oranges	2		
Tangeloes	2		
Tangerines	2		
Cotton		0.5	No time limitations.
Cucumbers			
Greenhouse		4.5 oz./ 50,000 cu.ft. of space	1 day.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NICOTINE SULFATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Deciduous Fruits & Nuts:			
Almonds		7.5	No time limitations.
Apples	2		
Apricots	2		
Cashews			
Cherries	2		
Chestnuts			
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory Nuts			
Nectarines	2		
Olives			
Peaches	2		
Pears	2		
Pecans			
Persimmons			
Plums	2		
Pomegranate			
Prunes	2		
Quinces			
Walnuts			
Field, Fiber & Forage Crops:			
Alfalfa		1.0	No time limitations.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn	2		
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NICOTINE SULFATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber & Forage Crops: (Cont.)		lbs. actual/A.	
Pasture Grass		1.0	No time limitations.
Peanuts			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Lettuce			
Greenhouse		4.5 oz./ 50,000 cu.ft. of space	5 days.
Tomatoes			
Greenhouse		4.5 oz./ 50,000 cu.ft. of space	1 day.
Tropical & Sub- Tropical Fruits:			
Avocados	2	7.5	No time limitations.
Bananas			
Guavas			
Mangoes			
Papayas			
Passion Fruit			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NICOTINE SULFATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables:			
Asparagus	2	1.0	No time limitations.
Beans	2		
Beets	2		
Blackeyed Peas	2		
Broccoli	2		
Brussels Sprouts	2		
Cabbage	2		
Cantaloupes	2		
Carrots			
Cauliflower	2		
Celery	2		
Collards	2		
Corn	2		
Cowpeas	2		
Cucumbers	2		
Eggplants	2		
Endive			
Garlic			
Horseradish			
Kale	2		
Kohlrabi	2		
Leeks			
Lettuce	2		
Melons	2		
Mustard Greens	2		
Okra	2		
Onions	2		
Parsnips	2		
Peas	2		
Peppers	2		
Pimientos			
Potatoes			
Pumpkins	2		
Radishes	2		
Rutabagas	2		
Salsify			
Shallots			
Spinach	2		
Squash (summer)	2		
Squash (winter)			
Sweet Potatoes			
Swiss Chard	2		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

NICOTINE SULFATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables: (Cont.)			
Tomatoes	2	1.0	No time limitations.
Turnips	2		
Watermelons	2		
Animals:			
Beef Cattle		0.05% (in water)	Dip or spray. Do not apply to dairy animals.
Goats			
Poultry		2.0%	Dust. Thorough application to animals.
Sheep			
Swine			
Poultry		40.0% (in oil)	Apply one drop 2 inches below vent and one drop on back of neck. Do not apply to young birds or mothering hens.
Agricultural Premises:			
Poultry Houses		40.0% (in oil or water)	Roost paint. No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

2-NITRO-1,1-BIS(p-CHLOROPHENYL) PROPANE AND 2-NITRO-1,1-BIS(p-CHLOROPHENYL)  
BUTANE MIXTURE (1-2 RATIO)\*

PRINCIPAL FORMULATIONS: 1.5% dusts; 25% wettable powder; 25% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans			
Green		1.0	Do not apply after first blooms appear. Do not feed treated vines to livestock.
Dry		1.0	20 days. Do not feed treated vines to livestock.
		0.75	Do not apply within 10 days of harvest, or first picking whichever is earlier. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Cotton		3.0	Do not apply after bolls open. Do not graze dairy or meat animals in treated fields.
		1.0	14 days.
Pears		8.0	Apply only before fruit begins to form or after harvest. Do not graze live- stock in treated orchards or feed crop waste or other edible parts.
Potatoes		0.5	10 days.
Agricultural Premises:			
Animal Pens		5.0%	Apply liberally to interior and exterior
Barns		in oil or water	surfaces (400 mgs./sq.ft.). Do not
Milk Rooms			contaminate milk, milk handling equipment,
Poultry Houses			feed, or drinking water.
Etc. (excluding dairy barns)			

\*Proprietary name: "Dilan"



USDA Summary of Registered Agricultural Pesticide Chemical Uses

NOREA\*

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A.	
		1.0	Preemergence application at time of or within 3 days after planting. Apply in a 12-14" band centered over the row. This treatment is equal to 3.3 lbs. actual per acre of treated bands.
		1.8	Post-emergence application at time of last cultivation as a directed spray to soil. Do not plant other crops on treated soil within 5 months after application.

\*3 (hexahydro-4,7-methanoindan-5-yl) 1,1-dimethyl urea

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Replaces page issued 7-1-64

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## H-OCTYL BICYCLOHEPTENE DICARBOXIMIDE\*

**PRINCIPAL FORMULATIONS:** Used as a supplemental synergist for pyrethrins

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain:			
Barley		1.0 lb./1000 bu.	Post-harvest application. Apply directly
Corn		or 500 sq. ft.	to grain as it is placed in storage or as
Oats			a surface treatment to grain already in
Rice			storage.
Rye			
Sorghum (Grain)			
Wheat			
Animals:			
Beef Cattle		2.0% in oil or water	Apply to outer hair as a mist spray at
Dairy Cattle			the rate of 2.0 oz. per animal the size
Goats			of an adult cow.
Sheep		2.0% in oil	Pressurized spray formulation. Apply to
Swine			outer hair at the rate of 2.0 oz. per
			animal the size of an adult cow.
		10.0% in oil	Apply by treadle sprayer at the rate of
			3.6 cc per animal the size of an adult
			cow. Repeat twice daily.
Agricultural Premises:			
Barns		1.0% dust	Apply liberally where insects hide or
Dairy Barns			congregate.
Hog Pens			
Milk Rooms		2.0% in oil or water	Apply as a space spray. Fill room with
Poultry Houses			mist and keep closed for 10 minutes.
Etc.			
		2.0% in oil	Pressurized spray formulation. Fill
			room with mist and keep closed for 10
			minutes.

\*Proprietary Name: "MGK-264"

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## USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-OCTYL SULFOXIDE OF ISOSAFROLE\*

**PRINCIPAL FORMULATIONS:** Ordinarily used in combination with pyrethrins

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:			
Blackberries Blueberries Boysenberries Cranberries Currants Dewberries Gooseberries Grapes Huckleberries Loganberries Raspberries Strawberries Youngberries		0.5% in water	Apply as a mist spray to all plant surfaces. No time limitations.
Deciduous Fruits:			
Almonds Apples Apricots Cashews Cherries Chestnuts Dates Figs Filberts Hazelnuts Hickory Nuts Nectarines Olives Peaches Pears Pecans Persimmons Plums Pomegranate Prunes Quinces Walnuts		0.5% in water	Apply as a mist spray to all plant surfaces. No time limitations.

\*Proprietary name: "Sulfoxide"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-OCTYL SULFOXIDE OF ISOSAFROLE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables:			
Asparagus		0.5%	Apply as a mist spray to all plant
Beans		in water	surfaces. No time limitations.
Beets			
Blackeyed Peas			
Broccoli			
Brussels Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash (summer)			
Squash (winter)			
Sweet Potatoes			

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**N-OCTYL SULFOXIDE OF ISOSAFROLE**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
Vegetables: (Cont.)			
Swiss Chard Tomatoes Turnips Watermelons		0.5% in water	Apply as a mist spray to all plant surfaces. No time limitations.
Animals:			
Beef Cattle Dairy Cattle Goats Sheep Swine		0.5% in water  1.0% in water  4.0% in oil	Dip or spray. Thorough application to animals. No time limitations.  Thorough application to ventral surfaces and legs of animals. Can be applied to entire body at 2 quarts per animal the size of an adult cow.  Apply 2 ounces per animal as a mist spray. Do not spray udder.
Agricultural Premises:			
Animal Pens Barns Dairy Barns Grain Bins Milk Rooms Poultry Houses		75 gms./1000 sq. ft. in water	Apply thoroughly to all interior surfaces as a wet spray.

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ORTHODICHLOROBENZENE

PRINCIPAL FORMULATIONS: 100% crystals

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Agricultural Premises:</p> <p>Poultry Houses Animal Sleeping Quarters</p>		<p>10.0% in oil</p>	<p>Apply liberally to all interior surfaces, especially roosts, nests, etc. in poultry houses.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

OVEX\*

PRINCIPAL FORMULATIONS: 5%-10% dusts; 40% or 50% wettable powders;  
20% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	3	5.0	14 days.
Apples		4.0	30 days.
Beans			
Snap		1.5	Do not apply after pods start to form.
Dry Lima		1.5	No time limitations.
Cherries		4.0	Apply only before fruit forms or after harvest.
Citrus Fruits:			
Grapefruit	5	15.0	15 days.
Lemons	5		
Oranges	5		
Tangerines	5		
Cotton		4.0	No time limitations.
Grapes		3.75	Do not apply after fruit sets.
Hickory Nuts		5.0	14 days.
Melons		2.0	Do not apply immediately prior to harvest.
Peaches	3	5.0	30 days.
Pears	3	5.0	30 days.
Plums	3	5.0	30 days.
Prunes	3	5.0	30 days.
Strawberries		2.25	Apply only before fruit forms or after harvest.
Walnuts		5.0	14 days.

\*p-chlorophenyl p-chlorobenzenesulfonate

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## USDA Summary of Registered Agricultural Pesticide Chemical Uses

OXYQUINOLINE SULFATE

PRINCIPAL FORMULATIONS: 67.5% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetable Seedlings		1 oz./20 gals. (use 1 qt/sq.ft.)	Preplanting soil application or as seedlings emerge.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## OXYTETRACYCLINE\*

**PRINCIPAL FORMULATIONS:** Soluble powder containing 21.6% of oxytetracycline hydrochloride

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Freshly-killed Uncooked Poultry	7	30 p.p.m. in the chilling bath	Use only on poultry that is to be cooked.

\*Proprietary name: "Biostat PA"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARACHLOROPHENOXYACETIC ACID\*

PRINCIPAL FORMULATIONS: 2.08% liquid diethanolamine salt  
 0.005% sodium salt (bomb)  
 3.8% tablet

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		ppm acid equivalent  50	Bloom set. Apply as a fine spray to flower clusters when they open. Do not apply more than 5 times per season. Do not apply more than once to individual clusters.

\*4-CPA

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

PARADICHLOROBENZENE

**PRINCIPAL FORMULATIONS:** Technical crystalline material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Ant Mounds		1.0 oz./ mound	Mix with soil at top of mound.
Apricots		2 oz./tree	Apply in a uniform band around tree two inches from trunk. Mound soil over crystals to a height of six inches on trunk. May be injurious to young trees. Consult local agricultural authorities.
		1 lb. actual/ tree in 2 qts. mineral oil or cottonseed oil	Apply in fall or early spring to dead or borer infested wood. Do not apply when fruit is present.
Cherries		1 lb. actual/ tree in 2 qts. mineral oil or cottonseed oil	Apply in fall or early spring to dead or borer infested wood. Do not apply when fruit is present.
Honey Comb		0.5 oz./ cu. ft.	Apply inside supers of stored comb. Supers should be stacked tightly and cracks between them taped. Thoroughly ventilate comb before reuse.
Nectarines		2 oz./tree	Apply in a uniform band around tree two inches from trunk. Mound soil over crystals to a height of six inches on trunk. May be injurious to young trees. Consult local agricultural authorities.
		1 lb. actual/ tree in 2 qts. mineral oil or cottonseed oil	Apply in fall or early spring to dead or borer infested wood. Do not apply when fruit is present.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARADICHLOROBENZENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peaches		2 oz./tree	Apply in a uniform band around tree two inches from trunk. Mound soil over crystals to a height of six inches on trunk. May be injurious to young trees. Consult local agricultural authorities.
		1 lb. actual/ tree in 2 qts. mineral oil or cottonseed oil	Apply in fall or early spring to dead or borer infested wood. Do not apply when fruit is present.
Plums		1 lb. actual/ tree in 2 qts. mineral oil or cottonseed oil	Apply in fall or early spring to dead or borer infested wood. Do not apply when fruit is present.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

PARAFORMALDEHYDE

**PRINCIPAL FORMULATIONS:** 6% powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
All Crops	2 (in finished syrup)	1.5 oz./sq. ft.	Preplanting soil application. Mix thoroughly with soil. Delay planting for 2-3 days.
Barley		3 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Beans		1 oz./30 ft. of row	Apply in furrow at planting time.
Beets		1 oz./30 ft. of row	Apply in furrow at planting time.
Broccoli		2-3 oz./sq. ft.	Preplanting soil application. Delay planting for 2-3 days.
Cabbage		2-3 oz./sq. ft.	Preplanting soil application. Delay planting for 2-3 days.
Cauliflower		2-3 oz./sq. ft.	Preplanting soil application. Delay planting for 2-3 days.
Cucumbers		2-3 oz./sq. ft.	Preplanting soil application. Delay planting for 2-3 days.
Kale		2-3 oz./sq. ft.	Preplanting soil application. Delay planting for 2-3 days.
Lettuce		2-3 oz./sq. ft.	Preplanting soil application. Delay planting for 2-3 days.
Maple Trees (Sugar)		250 mgs./tree in tap hole	No time limitations.
Oats		3 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Onions		1 oz./30 ft. of row	Apply in furrow at planting time.

## PARAFORMALDEHYDE

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PARATHION\*

**PRINCIPAL FORMULATIONS:** 15% and 25% wettable powders; 1% and 2% dusts;  
25% emulsifiable concentrates; 10% aerosol formulations

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa	1	0.8	15 days.
Almonds		3.0	Full coverage spray. Do not apply after hulls open.
		6.0	Dormant spray only.
Apples	1	6.0	14 days. Full coverage spray. Do not apply to susceptible varieties.
Apricots	1	3.6	14 days. Do not apply until danger of bee poisoning has passed.
Artichokes	1	1.0	7 days.
Asparagus		0.6	Post-cutting season.
Avocados	1	2.5	21 days.
Barley	1	1.5	15 days.
Beans	1	0.8	15 days.
		5.0	Preplanting soil application or at time of planting.
Beets	1	0.8	15 days. (21 days if tops are to be used for food or feed.)
Blackberries	1	0.8	15 days.
Blackeyed Peas	1	0.8	15 days.
Blueberries	1	0.6 (dust or spray)	14 days.
Boysenberries	1	1.0	15 days.
Broccoli	1	0.5	7 days.

\*O,O-diethyl O-p-nitrophenyl phosphorothioate

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Brussels Sprouts	1	0.5	7 days.
		1.0	14 days.
Cabbage	1	0.25	7 days.
		0.5	10 days.
		5.0	Preplanting soil application.
Carrots	1	1.0	15 days.
		5.0	Preplanting soil application.
Cauliflower	1	0.5	7 days.
		5.0	Preplanting soil application.
Celery	1	0.25	15 days.
		0.5	21 days.
		1.0	30 days.
Cherries	1	2.1	14 days. Full coverage spray.
Citrus Fruits:			
Grapfruits	1	4.0	14 days.
Kumquats	1		
Lemons	1	10.0	30 days.
Limes	1		
Oranges	1		
Tangeloes	1		
Tangerines	1		
Clover	1	1.5	15 days.
Collards	1	0.25	7 days.
		0.5	10 days.
Corn	1 (grain & forage)	1.0	12 days (of harvest or cutting for forage).



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cotton		1.2	5 days.
Cranberries	1	0.8	15 days.
		1.0	30 days.
Cucumbers	1	0.5	15 days. Do not apply before vining.
		0.1 lb./50,000 cu. ft. of greenhouse space	15 days.
Currants	1	0.8	30 days.
Dates	1	0.8	21 days.
Dewberries		1.0	15 days.
Eggplants	1	0.8	15 days.
Endive (Escarole)	1	0.5	21 days.
		0.1 lb./50,000 cu. ft. of greenhouse space	21 days. Apply as an aerosol formulation.
Figs	1	2.5	30 days. Full coverage spray for control of fig scale.
Filberts		3.0	Full coverage spray. Do not apply after hulls begin to open.
Garlic	1	0.6	15 days.
Gooseberries	1	1.0	15 days.
Grapes	1	1.5	14 days.
		2.5	Apply only before fruit is the size of buckshot or after harvest.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**PARATHION**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grass Hay	1	0.8	15 days.
Grass			
Pasture	1	0.8	15 days of pasturing or harvest.
Guavas	1	2.5	30 days.
Hops	1	0.8	15 days.
Kale	1	0.25	7 days.
		0.5	10 days.
Kohlrabi	1	0.8	7 days.
Lettuce			
Head	1	0.5	7 days.
		5.0	Preplanting soil application.
		0.1 lb./50,000 cu. ft. of greenhouse space	21 days.
Lettuce			
Bibb Leaf	1	0.25	14 days.
		0.5	21 days.
Loganberries	1	1.0	15 days. Dust or spray for control of mites and aphids.
Mangoes	1	3.0	21 days.
Melons	1	0.5	7 days.
Mustard Greens	1	0.25	7 days.
		0.5	10 days.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Nectarines	1	lbs. actual/A. 4.0	Areas other than California: Full coverage spray for control of scale insects. Do not apply within 14 days of harvest. Do not apply more than 5 lbs. actual parathion per acre per year.
		2.5	California: Do not apply within 21 days of harvest. Do not apply more than once after bloom. Do not apply more than 5 lbs. actual parathion per acre between January 1 and harvest.
Oats	1	1.5	15 days.
Okra	1	0.8	21 days.
Olives	1	11.0	Full coverage spray for control of olive scales. Do not apply later than Aug. 1.
Onions	1	0.8	15 days.
Pea Forage	1	0.5	15 days.
Peaches	1	4.0	Areas other than California: Full coverage spray for control of scale insects. Do not apply within 14 days of harvest. Do not apply more than 5 lbs. actual parathion per acre per year.
		2.5	California: Do not apply within 21 days of harvest. Do not apply more than once after bloom. Do not apply more than 5 lbs. actual parathion per acre between January 1 and harvest.
Peanuts	1	0.8	15 days.
Pears	1	3.6	14 days. Full coverage spray.
Peas	1	0.5	10 days.
Pecans		5.4	Full coverage spray. Do not apply within 15 days of harvest or after shucks open.

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peppers	1	0.8	15 days.
Pineapples	1	0.8	7 days.
Plums	1	4.0	14 days. Full coverage spray for control of scale insects.
Potatoes		1.0	5 days.
		4.0	Preplanting soil treatment.
Prunes	1	4.0	14 days. Full coverage spray for control of scale insects.
Pumpkins	1	0.8	10 days.
Quinces	1	3.6	14 days. Full coverage spray.
Radishes	1	0.5	15 days.
		0.1 lb./50,000 cu. ft. of greenhouse space	15 days. Apply as an aerosol formulation.
Raspberries	1	1.0	15 days.
Rutabagas	1	0.8	7 days.
Safflower		0.5	Do not apply after flowering.
Sorghum		1.0	12 days (of harvest or cutting for forage).
Soybeans		0.8	15 days.
Spinach	1	0.5	7 days.
Squash Summer Winter	1	0.5	15 days.
Strawberries	1	0.8	14 days.
		1.0	Post-harvest treatment for control of root weevils.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Sugar Beets		0.8	15 days.
Sweet Potatoes		1.0	15 days.
Swiss Chard	1	0.8	21 days.
Tomatoes	1	1.0	10 days.
		0.1 lb./50,000 cu. ft. of greenhouse space	10 days. Apply as an aerosol formulation
Turnips	1	0.25	7 days.
		0.5	10 days.
Vetch	1	0.8	15 days.
Walnuts		10.0	Do not apply after husks open.
Watercress Greenhouse		0.1 lbs./50,000 cu. ft. of greenhouse space	No application after edible parts begin to form.
Wheat	1	1.5	15 days.
General Soil Treatment		6.0	Preplanting soil application only. Keep all persons and animals out of treated area for 48 hours. Do not contaminate ponds or streams.
Agricultural Premises:			
Animal Sleeping Quarters Dairy Barns Feed Rooms Poultry Houses Sheep Folds Etc.		100 mg./linear foot or cord	Use 300 feet of impregnated cord per 1000 sq. ft. of floor space in building. Hang cords from ceiling.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARATHION

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises: (Cont.)		lbs. actual/A.	
General Mosquito Larvacide:			
Irrigation Ditches		1 oz./A.	To be applied by Public Health or Mosquito Abatement authorities. Repeat as necessary.
Irrigated Pastures	1 (on grass forage)	0.1	7 days.
Rice Fields	1 (on rice)	0.1	1 day.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN\*

PRINCIPAL FORMULATIONS: 90% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Asparagus		lbs. Actual/A.	
		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Beans		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Blackeyed Peas		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Broccoli		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Brussels Sprouts		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.

\*Copper metarsenite and copper acetate complex (containing about 57%  $As_2O_3$ )

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush and Vine Fruits:		lbs. Actual/A.	
Blackberries		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate fruit.
Blueberries			
Boysenberries			
Cranberries		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate fruit.
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Strawberries			
Youngberries			
Cabbage		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		8.0	Do not apply after edible parts start to form.
Carrots		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Cauliflower		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Celery		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Collards		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Corn		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Cotton		1.0	Do not graze dairy or meat animals in treated fields.
Cucumbers		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Eggplants		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Field Crops:			
Alfalfa		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts. Keep animals out of treated areas.
Barley			
Birdsfoot			
Trefoil			
Buckwheat		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts. Keep animals out of treated areas.
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Peanuts			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Kale		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Kohlrabi		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Melons		lbs. Actual/A. 1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Peppers		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Potatoes		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		8.5	Do not contaminate edible parts.
Pumpkins		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Rutabagas		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Spinach		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Squash		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Sugar Beets		16.0	Do not use treated tops for food or feed.
Tomatoes		0.75	Remove residues by washing, brushing, or other effective means.
		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Tree Fruits:			
Almonds		1.25	Wet bait formulation. Spread on soil around trees. Do not contaminate fruit. Keep animals out of treated area.
Apples			
Apricots			
Avocados			
Bananas		2.5	Bran bait formulation. Spread on soil around trees. Do not contaminate fruit. Keep animals out of treated area.
Cashews			
Cherries			
Chestnuts			
Dates			
Figs			
Filberts			
Grapefruit			
Guava			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tree Fruits (cont.):		lbs. Actual/A.	
Hazelnuts			
Hickory Nuts			
Kumquats			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Pecans			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			
Walnuts			
Turnips		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Vegetables (others):			
Beets		1.25	Wet bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Cowpeas			
Endive			
Garlic			
Horseradish		2.5	Bran bait formulation. Spread on soil around plants. Do not contaminate plant parts.
Leeks			
Lettuce			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PARIS GREEN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables (cont.):		lbs. Actual/A.	
Mustard Greens			
Okra			
Onions			
Parsley			
Parsnips			
Peas			
Pimentoes			
Radishes			
Rhubarb			
Salsify			
Shallots			
Sweet Potatoes			
Swiss Chard			
Special Mosquito Larvacide		1.5	Pellet formulation. Apply to swamps, irrigated pastures, and other bodies of standing water.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

PCNB\*

PRINCIPAL FORMULATIONS: 75% wettable powder; 25% liquid; 10%, 20%, and 40% dusts;  
24% emulsifiable concentrate

USE <u>1</u> /	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Alfalfa		12.0	One week after cutting or in late fall.
Bananas		0.75% paste	Apply as a paint to tips and butts of stems immediately after cutting. Do not contaminate skins.
Beans		7.5	Soil and seed treatment only (at planting time).
		5.0 (dust overall)	Foliar use. Do not feed treated vines to livestock.
		2.0 (spray directed at base of plant)	Do not apply after first bloom. Do not feed treated vines to livestock.
Broccoli		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Brussel Sprouts		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Cabbage		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.
		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Cauliflower		4.5 lbs./100 gals. water	Transplant solution 3/4 pint per plant.

\*Pentachloronitrobenzene

1/ All uses listed for PCNB refer only to field grown crops unless otherwise specifically noted.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PCNB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Cauliflower (cont.)		41.25	Row application--prior to transplanting.
		60.0	Broadcast--prior to planting.
Clover		12.0	One week after last cutting or in late fall.
Cotton		5.0	Soil and seed treatment only (at planting time).
Cotton (seed)		4.0 oz./100 lbs. seed	Seed treatment. Do not use treated seed for food or feed.
Garlic		10.2 lbs. per 1000 lbs.	Seed clove treatment (dust). Do not use treated seed for food or feed.
		22.5	Soil and seed treatment only (at planting time).
Lettuce (head)		22.5	Band application when plants are 2-3 inches high.
		4.0	Band application when plants are 2-3 inches high. Repeat application once ten days later (25-55 days preharvest).
Peanuts		15.0	Surface band application (12 inch band centered on row at pegging time).
		20.0	Preplanting soil application only.
		18.0	Divided into three successive applications of six pounds per acre each during cultivations. Band treatment (12 inch band centered on row).
Peppers			Do not feed treated peanut hay to livestock.
		7.5	Trench treatment at planting time.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PCNB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		lbs. Actual/A. 195 (W.P. or dusts only)	Broadcast--prior to planting.
		65 (W.P. or dusts only)	Row treatment--prior to planting.
Sorghum		1.4 oz./100 lbs. seed	Seed treatment. Do not use treated seed for food or feed.
Tomatoes		7.5	Trench treatment at transplanting time.
Tomatoes (greenhouse)		0.5 pts. of 0.2% sol./plant	Transplant water.
Wheat		0.75 oz./bu. 0.75 oz./bu.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

PENTACHLOROPHENOL\*

PRINCIPAL FORMULATIONS: 2% liquid; 5.0%, 10%, 40%, and 96% emulsifiable concentrate; 75% pellets; 95% crystals; 42.5% - 88% wettable powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		3.8	Dormant season (Feb. or early March). Apply when weeds are in 2-5 leaf stage.
Seed Crop		6.0	Preharvest desiccant. Apply 1-4 days prior to date of harvest. Do not graze treated areas or feed treated forage or threshings to livestock.
Chemical Summer Fallow		4.0	Wet weeds thoroughly. (Used in combination with 2,4-D).
Almonds		30.0	Dormant (Jan.-Feb.) application only.
Apricots		15.0	Dormant application only, before green tip stage of bud development.
Asparagus (Seedlings)		6.0	Preemergence application. Do not apply after seedlings emerge.
Beans		0.05 lbs./1000 lbs. seed	Seed treatment. Do not use treated seed for food, feed, or oil purposes.
Citrus Fruits:			
Grapefruit		3.0	Apply as directed ground spray at any time.
Kumquats			
Lemons			
Limes			
Oranges			
Tangeloes			
Tangerines			
Clovers (undesignated) (seed crop)		6.0	Preharvest desiccant. Apply 1-4 days prior to date of harvest. Do not graze treated areas or feed treated forage or threshings to livestock.
Coffee		4.5	Apply as directed spray when weeds and grasses are small and succulent. (May be combined with 2,4-D).

\*TCP

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PENTACHLOROPHENOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Corn		2.5	Preemergence application.
		9.0	Post-emergence application when first shoots of corn are visible above ground.
Cotton		2.5	Preemergence application.
		4.5	Post-emergence application as directed spray before weeds are 2 in. high. Repeat with 5-6 treatments as perennial weeds reappear and before 2 in. high.
Seed Crop		3.0	Preharvest desiccant. Apply only after 50%-60% of bolls are open. Do not use seed from treated crop for food, feed, or oil purposes.
Flax			
Seed Crop		4.0	Preharvest desiccant. Apply 2-4 days before harvest. Do not graze treated areas, or feed treated forage or threshings to livestock.
Grain (small) (seed crop):			
Barley		6.0	Preharvest desiccant. Apply when seed heads are mature. Do not graze treated area or feed treated forage or threshings to livestock. Do not use seed from treated crop for food or feed.
Oats			
Rice			
Rye			
Wheat			
Grapes		10.0	Apply as directed ground spray in early spring. Repeat applications when weeds reappear. Avoid spraying foliage and trunks.
Lespedeza			
Seed Crop		6.0	Preharvest desiccant. Apply 2-4 days prior to date of harvest. Do not graze treated areas or feed treated forage or threshings to livestock.

## PENTACHLOROPHENOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Orchards:		lbs. actual/A.	
Apples		10.0	Apply as directed ground spray in early spring. Repeat applications when weeds reappear. Avoid spraying foliage and trunks. Do not apply after fruit starts to form.
Apricots			
Avocados			
Cherries			
Dates			
Figs			
Filberts			
Grapefruit			
Guavas			
Kumquats			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			
Pineapple		24.0	Preemergence application on weeds in bare soil between paper-mulched beds.
		14.4	Post-emergence application as directed spray on weed seedling. Avoid application to pineapple foliage. Do not apply in fruiting fields at red bud stage or later.
Potatoes		6.0	Preemergence application no later than 4-5 days after planting.
		9.0	Post-emergence application when first shoots of potato plant are visible above ground.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PENTACHLOROPHENOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Prunes		30.0	Dormant (Jan.-Feb.) application only.
Rice			
Seed Crop		6.0	Preharvest desiccant. Apply 2-4 days prior to date of harvest. Do not graze treated areas or feed treated forage or threshings to livestock. Do not use seed from treated crops for food or feed purposes.
Sorghum (Grain)			
Seed Crop		6.0	Preharvest desiccant. Apply when grain is fully colored (1-4 days prior to harvest). Do not graze treated areas, or feed treated forage or threshings to livestock. Do not use seed from treated crop for food or feed.
Soybeans		2.5	Preemergence application.
		4.5	Post-emergence application as directed spray before weeds are 2 in. high.
Seed Crop		6.0	Preharvest desiccant. Apply 2-4 days prior to harvest. Do not graze treated areas or feed treated forage or threshings to livestock. Do not use seed from treated crops for food, feed, or oil purposes.
Sugar Beets		4.0	Preemergence application 2 days before emergence of sugar beet seedlings. Repeat with 5-6 treatments as perennial weeds reappear and before 2 inches high.
Sugarcane		50.0	Preemergence application to soil and weeds immediately after planting or ratooning.

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PENTACHLOROPHENOL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugarcane (cont.)		lbs. actual/A.  10.5	Post-emergence application as directed spray to weed seedlings when cane is 1 1/2-2 ft. tall. Repeat application when new weeds appear. Do not apply after close in of cane. Do not exceed 192 lbs. actual chemical per season in Hawaii.
Vegetables (undesignated)		4.0	Preemergence application 2 days before emergence of crop seedlings.
Vetch			
Seed Crop		4.0	Preharvest desiccant. Apply when about one half of the seed pods are brown (1-4 days prior to harvest). Do not graze treated areas, or feed treated forage or threshings to livestock.
Agricultural Premises:			
Poultry houses		5.0%	Clean and thoroughly treat all interior surfaces by spraying or brushing. Thoroughly ventilate and allow house to dry for 48 hours before returning birds.
Bee hives		5.0% (in oil)	Apply to hive boxes prior to use. Allow hives to dry thoroughly before use. Do not apply to frames and internal fixtures.
Seed flats Greenhouse benches Cold frames Poles and timbers for potato cellars		1 gal. 5% solution/ 100 sq.ft.	Wood treatment.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PENTANE

**PRINCIPAL FORMULATIONS:** Incidental ingredient in grain fumigants

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Commodity Fumigation:		lbs. actual/ 1000 bushels	
Barley	Exempt	1.5	No time limitations.
Corn	Exempt	with other	
Oats	Exempt	grain fumigants	
Popcorn	Exempt		
Rice	Exempt		
Rye	Exempt		
Sorghum (Milo)	Exempt		
Wheat	Exempt		



## PERACETIC ACID

PRINCIPAL FORMULATIONS: 40% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas		2.5% solution	Postharvest spray or dip. Rinse after treatment.
Berries		2.5% solution	Postharvest spray or dip. Rinse after treatment.
Citrus		2.5% solution	Postharvest spray or dip. Rinse after treatment.
Cucumbers		2.5% solution	Postharvest spray or dip. Rinse after treatment.
Eggs		0.1% solution	Wash egg shells in solution.
Fruits and Vegetables		0.3% solution	Postharvest spray or dip. Rinse after treatment.
Grapes		2.5% solution	Postharvest spray or dip. Rinse after treatment.
Tomatoes		2.5% solution	Postharvest spray or dip. Rinse after treatment.
Baskets lugs Other containers for harvesting crops		0.3% solution	Dip or spray.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS\*

PRINCIPAL FORMULATIONS: 100% sprays, soluble oils, and as carriers for other pesticides in livestock fly sprays and emulsifiable concentrates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Alfalfa	Exempt	30.0	Dormant application to stands which have been established two years or more.
(seed crop)		45.0	Preharvest drying. Apply 5-14 days prior to harvest.
Asparagus	Exempt	40.0	Preemergence application when weeds are 1-2 inches high.
		100.0	Post-harvest application to soil. Do not apply to ferns.
Beans	Exempt	80	Preemergence - apply when weeds are in seedling stage.
Beets	Exempt	100.0	Preemergence - apply before weeds are 3 inches tall.
Blackberries	Exempt	40.0	Apply during dormancy as a directed spray to soil and lower 5 inches of canes.
		100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not apply to canes.
Blueberries	Exempt	40.0	Apply during dormancy as a directed spray to soil and lower 5 inches of canes.
		100.0	Postemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on crop.
Boysenberries	Exempt	100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not apply to canes.
Broccoli	Exempt	40.0	Preemergence application when weeds are 1-2 inches high.
Brussels sprouts	Exempt	40.0	Preemergence - apply when weeds are 1-2 inches tall.

\*Also see "Summer Oils," "Dormant Oils," and "Mineral Oil"

## PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Cabbage	Exempt	40.0	Preemergence - apply when weeds are 1-2 inches tall.
Caraway	Exempt	100.0	Preemergence application or post-emergence application when plants are in 2-4 fern leaf stage.
Carrots	Exempt	100.0	Preemergence application. Apply before weeds are 3 inches high.
		150.0	6 weeks. Postemergence application when carrots are in 2-4 leaf stage.
Cauliflower	Exempt	40.0	Preemergence - apply when weeds are 1-2 inches tall.
Celery	Exempt	100.0	Preemergence application or postemergence application when crop produces first true leaves (2-4 weeks after transplanting) and before crown leaf cups are formed.
Clover (seed crop)	Exempt	45.0	Preharvest drying. Apply 5-14 days prior to harvest.
Corn (sweet)	Exempt	100.0	Preemergence application.
Cotton	Exempt	5.0	Postemergence application not less than 7 days after cotton emerges. Repeat as weeds appear at 5-day intervals with no more than 5 applications.
Cranberries	Exempt	100.0	Apply when weeds are 1-2 inches high in spring. Do not apply when temperature is over 80°F. or when leaves are wet.
		800.0	Dormant application every 2 years. Do not apply after budding begins.
Cucumbers	Exempt	100.0	Preemergence application.
Dill	Exempt	100.0	Preemergence application or postemergence application when dill is in 2-4 fern leaf stage. Repeat 4-6 weeks later.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber, and Forage Crops:		gallons/A.	
Alfalfa	Exempt	8.0 lbs. act/A. in water sprays	No time limitations. As carriers of other insecticides.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture grass			
Peanuts			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugarbeets			
Sugarcane			
Vetch			
Wheat			
Flax	Exempt	100.0	Postemergence application when flax is about 3-4 inches high.
Grapes	Exempt	100.0	Apply as a directed spray when weeds are 1-2 inches high.
Gooseberries	Exempt	100.0	Postemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on crop.
Lettuce	Exempt	75.0	Preemergence application.

## PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		gallons/A.	
Loganberries	Exempt	100.0	Postemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on canes.
Melons	Exempt	100.0	Preemergence application.
Mint	Exempt	100.0	Preemergence application.
Onions	Exempt	75.0	Preemergence application.
		40.0	Postemergence application up to hook stage.
Orchards:			
Almond	Exempt	100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not allow spray to come in contact with tree foliage.
Apricot	Exempt		
Avocado	Exempt		
Citrus	Exempt		
Date	Exempt		
Olive	Exempt		
Peach	Exempt		
Pear	Exempt		
Plum	Exempt		
Walnut	Exempt		
Parsley	Exempt	100.0	Preemergence application before weeds are 3 inches high or postemergence application when parsley is in 2-4 leaf stage. Do not apply within 6 weeks of harvest.
Parsnips	Exempt	100.0	Preemergence application when weeds are 3 inches high or postemergence application when parsnips are in 2-4 leaf stage. Do not apply within 6 weeks of harvest.
Peas	Exempt	100.0	Preemergence - apply when weeds are less than 3 inches tall.
Potatoes	Exempt	100.0	Preemergence application.
		45.0	Preharvest drying. Apply 14 days prior to harvest or when foliage starts to turn brown.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Raspberries	Exempt	gallons/A. 40.0	Apply during dormancy as a directed spray to soil and lower 5 inches of canes.
		100.0	Apply as a directed spray when weeds are 1-2 inches high. Do not apply to canes.
Stored Grain:			
Barley		7.0 lbs. act./	Apply to surface layer of stored grain.
Corn		1000 sq. ft.	No time limitations.
Oats			
Rice		7.0 lbs. act./	Apply as a space spray over stored grain.
Rye		50,000 cu. ft.	Keep bin tightly closed for at least 10 minutes.
Sorghum (grain)			
Wheat			
Soybeans	Exempt	5.0	Postemergence application 12-14 days after emergence. Repeat application at 5-day intervals.
Strawberries	Exempt	100.0	Preemergence - apply between rows when weeds are not over 3 inches tall. Avoid application to crop.
Sugar beets	Exempt	100.0	Preemergence - apply before weeds are 3 inches tall.
Tomatoes	Exempt	40.0	Preemergence application when weeds are 1-2 inches high.
		100.0	Preemergence - apply between rows when weeds are not over 3 inches tall. Avoid application on crop.
Animals:			
Beef cattle		2.0 oz.	No time limitations. Apply as a mist
Dairy cattle		(of distillate	spray. Do not wet hide of animal.
Goats		sprays per	
Sheep		adult animal)	
Swine			
Poultry		2.0%	No time limitations. As carriers of
		(in water)	other insecticides. Dip or spray.
			Thoroughly drench animals.

## PETROLEUM SOLVENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		gallons/A.	
Barns		7.0 lbs./ 1000 sq. ft.	Apply thoroughly to all surfaces as a residual spray. Formulated with other ingredients. Do not contaminate milk or milk handling equipment.
Dairy barns			
Grain bins			
Milk rooms			
Poultry houses			
Others		7.5% in water sprays	As carriers of other insecticides. Apply to all surfaces to the point of run-off. Do not contaminate milk or milk handling equipment.
		3.0% in water sprays	As carriers of other insecticides. Fill room with mist and keep closed for ten minutes. Do not contaminate milk or milk handling equipment.
		99.0%	Formulated with other ingredients. Fill room with mist and keep tightly closed for ten minutes.
		44.0%	Formulated with other ingredients. Apply as a paint to roost, nests, etc. in poultry houses. Replace nesting and litter.
Irrigation and Drainage Ditches		1200.0	Apply metered amount near head of ditch. Water containing emulsion should be wasted or applied to crops which are irrigated from furrows. Do not contaminate water used for human or animal consumption. Do not use in lakes or ponds containing fish.
Special Mosquito Larvacide		0.5% in water sprays	Apply uniformly over standing bodies of water, swamps, and rice fields, etc.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PHENOL (CARBOLIC ACID)

PRINCIPAL FORMULATIONS: 3.0% paint with other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cattle Goats Sheep Swine		3.0% paint with other ingredients	Apply as a wound dressing after dehorning, castrating, or other minor wounds.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PHENOTHIAZINE\*

**PRINCIPAL FORMULATIONS:** 15% and 36% wettable powders; mineral feed supplement

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples	7	20.0	30 days.
Pears	7	20.0	30 days.
Quinces	7	20.0	30 days.
Animals:			
Beef cattle		15.0% (powder)	Apply liberally to animal and brush into hair, making sure powder reaches skin.
Goats			Do not apply to dairy animals.
Sheep			
Swine			
(excluding dairy cattle)			
Cattle		3.0 grams/ head daily	Feed in salt or in mineral supplement. Do not feed to lactating dairy animals.
		1/4 gram/100 lbs. body weight daily	Feed in salt or in mineral supplement. Do not feed to lactating dairy animals.

\*Thiodiphenylamine

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYLAMINO CADMIUM DILACTATE (6.25%) PLUS  
 PHENYL MERCURY FORMAMIDE (6.25%)

**PRINCIPAL FORMULATIONS:** Mixture of technical materials with inert diluents

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		0.5	Seed treatment. Do not use treated seed for food or feed.
Flax		1.5	Seed treatment. Do not use treated seed for food or feed.
Oats		1.5	Seed treatment. Do not use treated seed for food or feed.
Rye		0.5	Seed treatment. Do not use treated seed for food or feed.
Sorghum		0.5	Seed treatment. Do not use treated seed for food or feed.
Wheat		0.5	Seed treatment. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC ACETATE

PRINCIPAL FORMULATIONS: 2.5%, 4.0%, 5.4%, 7.5%, 10.0%, 22.0% liquids;  
14.0% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Apples	0	0.5	Delayed dormant through petal fall.
Barley		0.078 oz. act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Cherries	0	0.5 pint of 10% liquid/100 gals.	Petal fall application.
Flax		0.234 oz. act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Millet		0.078 oz. act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Oats		0.078 oz. act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Peaches	0	0.5 pint of 10% liquid/100 gals.	Petal fall application.
		1.5 pints of 10% liquid/100 gals.	Make two applications 2-4 weeks apart before buds swell. Use in Oregon and Washington only.
Pears	0	0.5 pint of 10% liquid/100 gals.	Petal fall application.
Rye		0.078 oz. act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.
Sorghum		0.078 oz. act./bu.	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC ACETATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Strawberries	0	lbs. Actual/A. 0.5 pint of 10% sol./100 gals. water	No application while fruit is present. Apply only when growth begins in spring or post-harvest; use no more than 250 gallons per acre.
Sugarcane		0.5 pint of 10% sol./100 gals. water	Dip seed pieces for 20 minutes at 50°C.
		1.0 quart of 10% sol./100 gals. water	Dip seed pieces momentarily or spray on seed pieces.
Vegetable seed beds		37 oz. act./A.	Preemergence soil treatment only when seedlings are to be transplanted later to untreated soil.
Wheat		0.078 oz. act./bu	Seed treatment only. Apply as dry dust or by slurry treater. Do not use treated seed for food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC ACETATE, 5% - ETHYL MERCURIC ACETATE, 1% (MIXTURE)

PRINCIPAL FORMULATIONS: 5% - 1% mixture

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Cotton (seed):			
Acid delinted		3 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Machine delinted		2 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Fuzzy		4.8 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Flax		1.5	Seed treatment (dry and slurry).
Grain:			
Barley		0.5	Seed treatment (dry).
Oats		0.75	Seed treatment (slurry).
Rye			Do not use treated seed for food or feed.
Sorghum			
Wheat			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURIC AMMONIUM ACETATE

PRINCIPAL FORMULATIONS: 7.0% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		oz./bu. 0.5	Seed treatment only (slurry). Do not use treated seed for food, feed, or oil.
Cotton:			
Acid delinted		2.0 oz./100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Machine delinted		3.0 oz./100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Fuzzy		4.5 oz./100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Flax		1.5	Seed treatment only (slurry). Do not use treated seed for food, feed, or oil.
Oats		0.5	Seed treatment only (slurry). Do not use treated seed for food, feed, or oil.
Rice		0.5	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		0.5	Seed treatment only (slurry). Do not use treated seed for food, feed, or oil.
Wheat		0.5	Seed treatment only (slurry). Do not use treated seed for food, feed, or oil.

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PHENYL MERCURIC FORMAMIDE - CADMIUM DILACTATE MIXTURE

PRINCIPAL FORMULATIONS: Phenyl mercuric formamide 6.25% (mercury 3.8%);  
Phenyl amino cadmium dilactate 6.25% (cadmium 1.8%)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./bu.	
Barley		0.5	Seed treatment only. Do not use treated seed for food or feed.
Flax		1.5	Seed treatment only. Do not use treated seed for food or feed.
Oats		0.5	Seed treatment only. Do not use treated seed for food or feed.
Sorghum		0.5	Seed treatment only. Do not use treated seed for food or feed.
Wheat		0.5	Seed treatment only. Do not use treated seed for food or feed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PHENYLMERCURIC 8-OXYQUINOLINATE

PRINCIPAL FORMULATIONS: 20% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	0	1/4 pint of solution per 100 gals. water	Do not apply after petal fall.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-PHENYL-MERCURI-ETHYLENEDIAMINE

PRINCIPAL FORMULATIONS: 10% liquid; 10% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		0.8	Popcorn stage to petal fall. Do not use treated hulls for food or feed.
Apples		0.5	Delayed dormant through petal fall.
Pears		0.25	Apply in blossom through petal fall stage.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PHENYL MERCURI LACTATE

PRINCIPAL FORMULATIONS: 5.3% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	0	1 pt./100 gals.	Early season application up to petal fall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURI TRIETHANOL AMMONIUM LACTATE

PRINCIPAL FORMULATIONS: 7.5% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Apples	0	0.2	Through petal fall.
Apricots	0	0.045	Pink to petal fall.
Cherries	0	0.045	Up to petal fall.
Peaches	0	0.045	Up to petal fall.
Pears	0	0.2	Through petal fall.
Potatoes	0	1 fl.oz./3 gals. water	Dip seed potatoes one minute.
Strawberries	0	0.045	Dormant application.
Sweet Potatoes	0	1 teaspoon/6 gals. water	Prebedding root and sprout dip treatment.
Walnuts	0	19.0	3-4 months before harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURY DIMETHYLDITHIOCARBAMATE

PRINCIPAL FORMULATIONS: 10% powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	0	lbs. Actual/A. 0.56	Delayed dormant application through petal fall. Do not apply after petal fall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURY MONOETHANOL AMMONIUM ACETATE

PRINCIPAL FORMULATIONS: 11.5% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	0	0.5 pint of solution/100 gals. water	Do not apply after petal fall.
Pears	0	0.5 pint of solution/100 gals. water	Do not apply after petal fall.
Strawberries	0	0.5 pint of solution/100 gals. water	Dormant application in spring, or post- harvest. Do not apply more than 250 gallons per acre.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHENYL MERCURY SALICYLATE

PRINCIPAL FORMULATIONS: 10% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		1/2 fl. oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Corn		1 fl.oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Flax		1 1/2 fl.oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Oats		1/2 fl. oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Peanuts		2 fl.oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Peas		1 fl.oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Rye		1/2 fl. oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Sorghum		1/2 fl. oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.
Soybeans		1 fl.oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Wheat		1/2 fl. oz./bu.	Seed treatment. Do not use treated seed for food, feed, or oil.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PHENYL MERCURY UREA

PRINCIPAL FORMULATIONS: 1.93% and 6.7% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn		oz./actual 0.10/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil purposes.
Cottonseed			
Fuzzy		0.30/100 lbs.	Seed treatment only. Do not use treated seed for food, feed, or oil purposes.
Acid delinted		0.20/100 lbs.	
Machine delinted		0.27/100 lbs.	
Flax		0.10/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil purposes.
Grain			
Barley		0.034/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil purposes.
Oats			
Peas			
Rice			
Rye			
Sorghum			
Wheat			

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## O-PHENYL PHENOL

**PRINCIPAL FORMULATIONS:** 5% liquid; 98% wettable powder; 2% in wax

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Carrots	20	0.5% in appropriate approved wax	Postharvest application by commercial wax applicator.
Citrus fruits		0.8% in wax	Postharvest application to fruit.
Cucumbers	10	2.5% in wax	Postharvest application by commercial wax applicator.
Nectarines	5	0.2% in wax	Postharvest application by commercial wax applicator.
Peaches	20	0.2% in wax	Postharvest application by commercial wax applicator.
Peppers	10	2.5% in wax	Postharvest application by commercial wax applicator.
Plums	20	2% in approved wax	Postharvest application by commercial wax applicator.
Tomatoes	10	2.5% in wax	Postharvest application by commercial wax applicator.
Crates Field boxes Hampers Lugs Wood containers for fruits and vegetables		5.0% liquid	Dip for 3 minutes. Drain and dry before using.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHORATE\*

PRINCIPAL FORMULATIONS: 44% product containing 54% carbon dust and 2% methyl cellulose, 10% and 5% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Alfalfa		2.0	Apply as a spray to seed in row at planting. Do not cut or graze within 60 days after planting.
		1.0	Granular formulations. Apply by drilling or broadcasting. Do not cut or graze within 60 days after planting.
Alfalfa (seed treatment)		0.88 lbs. 15 lbs. seed	Seed treatment only. Do not cut or graze within 60 days after planting.
Barley (irrigated)		1.0	60 days. Do not graze treated fields.
Beans		2.0	Granular formulation. Apply uniformly in furrow to one side of seed at time of planting. Do not apply in contact with seed. Do not feed forage within 60 days after planting.
Corn		0.5 - 1.0	Granular formulation. Apply to furrow evenly as a band <u>at planting time</u> . Place granules 1/2 to 1 inch above the seed. Do not place in direct contact with seed. or If not used at planting time, apply granules at time of cultivation (after emergence) in a band at base of plants just ahead of cultivator so as to cover granules with soil. Apply in June when corn rootworm activity is observed. Do not make any later applications.
Corn (field)		1.0	Apply to whorl of plants immediately prior to tasseling. Do not apply if previous soil application was made.
Cotton		2.0	60 days. Apply to furrow at time of planting or as a side-dressing after plants emerge.

\*O,O-diethyl S-(ethylthiomethyl) phosphorodithioate; proprietary name: "Thimet"



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHORATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 0.3	Furrow treatment. Apply by hill-dropped method.
		1.0	Do not apply after bolls open. Do not graze treated areas or feed forage to livestock.
Cottonseed		0.88 lbs./amount of seed required per acre	Seed treatment only.
Peanuts		1.0	Granular formulation. Apply to furrow at time of planting. Do not graze immature crop.
		2.0	Band treatment of fruiting zone at pegging time. Work into top few inches of soil. Do not graze immature crop.
Potatoes		3.0	Apply to furrow or in bands on each side of row at time of planting.
Rice		1.0	Postharvest soil application. Use limited to the Federal-State cooperative program for the suppression of the rice plant hopper in Louisiana.
		2.0 (granular)	Broadcast application by ground or air equipment. Do not apply within 45 days of harvest. Do not apply more than once per season. Do not permit incidental harvest of crayfish or other edible fishes from treated field.
Sugar beets		2.0	Apply as a spray to seed in row at time of planting.
		1.0	No time limitations. Granular formulations. Apply by drilling or broadcasting.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHORATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugar beets (fall planted in Imperial Valley, California)		lbs. actual/A.  1.0 (30 in. row spacing)  or 0.92 oz. actual per 1000 feet of row	Apply by drilling or broadcasting at seeding time or apply to foliage and crowns when plants are dry. Foliage application by air may be used when wet soil prohibits ground application. Do not place granules in direct contact with seed. Do not apply within 60 days of harvest. Do not graze livestock on grow- ing crop or on stubble after threshing.
Sugar beets (seed)		0.88 lbs./25 lbs. of seed	Seed treatment only.
Tomatoes		2.0	Apply as a band treatment on either side of row at time of planting or transplant- ing.  or Distribute evenly in seed bed prior to planting. Do not make more than one application per season.
Wheat		1.0	Apply to furrow at time of planting. Do not graze treated wheat.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHOSPHAMIDON\*

PRINCIPAL FORMULATIONS: Emulsion concentrate, four pounds per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		0.5 (spray) 1.0 (dust)	10 days.
Apples		6.0	60 days.
Beans		0.5	14 days. Do not feed treated vines to livestock.
Cabbage		0.75	7 days.
Cantaloupes		0.5	3 days.
Cherries (red tart)		4.0	Apply during delayed dormancy, post-harvest or nonbearing years only.
Cotton		0.5	Do not apply within two weeks of harvest.
Cucumbers		0.5	14 days.
Eggplant		0.5	3 days.
Oranges		2.5	Do not apply within four months of harvest.
Peas		0.5	16 days.
Peppers		2.0	14 days.
Potatoes		1.0	30 days.
Rice		0.5	21 days. Do not feed treated straw to dairy animals or animals being finished for slaughter.
Sugar beets		1.0	30 days.
Tomatoes		0.5	10 days.
Walnuts		1.0	21 days.

\*2-Chloro-2-diethylcarbamoyl-1-methylvinyl dimethyl phosphate

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PHOSPHAMIDON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Watercress		1.0	3 days.
Wheat		0.5	30 days.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PINE OIL

**PRINCIPAL FORMULATIONS:** 100% technical liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. actual/A.	
Blackberries		12.0	No time limitations. Formulated with
Blueberries		(in water)	other ingredients.
Boysenberries			
Cranberries			
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Youngberries			
Field, Fiber, & Forage Crops:			
Alfalfa		6.0	No time limitations. Formulated with
Barley		(in water)	other ingredients.
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts			
Popcorn			
Rice			
Rye			

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

PINE OIL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber, & Forage Crops: (Cont.)		lbs. actual/A.	
Safflower		6.0	No time limitations. Formulated with
Sorghum		(in water)	other ingredients.
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Tree Fruits:			
Apples		0.5%	No time limitations. Full coverage
Apricots		(in water)	spray. Formulated with other ingredients.
Avocados			
Cherries			
Dates			
Figs			
Grapefruit			
Guavas			
Kumquats			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PINE OIL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables:		lbs. actual/A.	
Asparagus		6.0	No time limitations. Formulated with
Beans		(in water)	other ingredients.
Beets			
Blackeyed Peas			
Broccoli			
Brussels Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentos			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash (summer)			
Squash (winter)			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PINE OIL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (cont.)		lbs. actual/A.	
Sweet Potatoes Swiss Chard Tomatoes Turnips Watermelons		6.0 (in water)	No time limitations. Formulated with other ingredients.
Animals:			
Beef Cattle Dairy Cattle Goats Poultry Sheep Swine		5.0% (in oil)	Formulated with other ingredients. Apply as a mist spray to outer hair.
		2.0% (in water)	Dip or spray. Formulated with other ingredients. Thoroughly drench animals.
		50.0% (smear or liquid)	Formulated with other ingredients. Apply locally to wounds, cuts, and abrasions for control of screw-worms. Apply inside ears for control of ticks.
Agricultural Premises:			
Poultry Houses		80.0%	Apply liberally to roosts, nests, etc. No time limitations.
Animal Sleeping Quarters Barns Dairy Barns		1.5% (in water)	Formulated with other ingredients. Apply liberally to all surfaces. Do not contaminate milk or milk handling equipment.
Milk Rooms Poultry Houses Brooders		10.0% (in oil)	Formulated with other ingredients. Apply as a mist spray to interior surfaces and space. Do not contaminate milk or milk handling equipment.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PINE TAR

**PRINCIPAL FORMULATIONS:** 100% technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Poultry Sheep Swine</p>		100.0%	<p>Apply as a spot treatment to wounds, cuts, scratches, etc. as a screw-worm fly repellent control. Apply to horn stumps after dehorning. Apply as a spot treatment on wounds, cuts, scratches, etc. on poultry. Do not apply near the eyes. Do not allow birds in sunlight immediately after treatment.</p>
<p>Sheep</p>		100.0%	<p>Apply a small amount to the noses of sheep to repel sheep bot flies.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PIPERONYL BUTOXIDE\*

**PRINCIPAL FORMULATIONS:** Pyrethrum synergist in various sprays and dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bush & Vine Fruits:			
Blackberries	Exempt	5.0	No time limitations.
Blueberries	Exempt	(dust)	
Boysenberries	Exempt		
Cranberries	Exempt	0.5	
Currants	Exempt	(spray)	
Dewberries	Exempt		
Gooseberries	Exempt		
Grapes	Exempt		
Huckleberries	Exempt		
Loganberries	Exempt		
Raspberries	Exempt		
Strawberries	Exempt		
Youngberries	Exempt		
Cottonseed	8	5.0 gms./1000 cu. ft. (spray) 10.0% (dust)	Post-harvest application. Apply directly to and in space over commodities in storage.
Deciduous Fruits & Nuts:			
Almonds	Exempt	5.0	No time limitations.
Apples	Exempt	(dust)	
Apricots	Exempt		
Cashews	Exempt	0.5	
Cherries	Exempt	(spray)	
Chestnuts	Exempt		
Dates	Exempt		
Figs	Exempt		
Filberts	Exempt		
Hazelnuts	Exempt		
Hickory Nuts	Exempt		
Nectarines	Exempt		
Olives	Exempt		
Peaches	Exempt		
Pears	Exempt		
Pecans	Exempt		

\* Butylcarbityl-6-(propyl piperonyl) ether

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Deciduous Fruits & Nuts: (Cont.)		lbs. actual/A.	
Persimmons	Exempt	5.0	No time limitations.
Plums	Exempt	(dust)	
Pomegranate	Exempt		
Prunes	Exempt	0.5	
Quinces	Exempt	(spray)	
Walnuts	Exempt		
Flax	8	5.0 gms./1000 cu. ft. (spray) 10.0% (dust)	Post-harvest application. Apply directly to and in space over commodities in storage.
Forage Crops:			
Alfalfa	Exempt	3.0	No time limitations.
Birdsfoot	Exempt	(dust)	
Trefoil			
Clovers	Exempt	0.22	
Grasses	Exempt	(spray)	
Pastures	Exempt		
Range	Exempt		
Vetch	Exempt		
Others	Exempt		
Fruits & Nuts:			
Almonds	8	5.0 gms./1000	Post-harvest application. Apply directly to commodities in the field, in storage, or in processing plants.
Apples	8	cu. ft. as	
Blackberries	8	spray	
Blueberries	8		Post-harvest application. Apply directly to commodities in the field, in storage, or in processing plants.
Boysenberries	8	10.0%	
Cherries	8	(dust)	
Currants	8		
Dewberries	8		Post-harvest application. Dip injured fruits and vegetables at time of harvest.
Figs	8	1.0%	
Gooseberries	8	emulsion dip	
Grapes	8		
Guavas	8		
Huckleberries	8		
Loganberries	8		
Mangoes	8		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Fruits & Nuts: (Cont.)		lbs. actual/A.	
Oranges	8	5.0 gms./1000	Post-harvest application. Apply directly to commodities in the field, in storage, or in processing plants.
Peaches	8	cu. ft. as	
Pears	8	spray	
Plums	8		
Prunes	8	10.0%	Post-harvest application. Apply directly to commodities in the field, in storage, or in processing plants.
Raspberries	8	(dust)	
Walnuts	8		
		1.0% emulsion dip	Post-harvest application. Dip injured fruits and vegetables at time of harvest.
Grain:			
Barley	20	6.0 lbs./1000	Post-harvest application. Apply directly to grain as it is placed in storage.
Birdseed	20	bu. (dust)	
Mixtures		2.0 lbs./1000	
Buckwheat	20	bu. (spray)	
Corn	20		
Oats	8	0.8 lbs./1000	Post-harvest application. Apply as a surface treatment to bagged or bulk stored grain.
Rice	20	sq. ft.	
Rye	20	(dust or spray)	
Sorghum	8		
(Grain)			
Wheat	20		
Mushrooms	Exempt	70.0 gms./ standard mushroom house	No time limitations.
Peanuts	8	1.5 lbs./1000 bu.	Post-harvest application. Apply directly to peanuts on conveyor as they are placed in storage.
		0.8 lbs./1000 sq. ft. (dust or spray)	Post-harvest application. Apply as a surface treatment to bulk or bagged peanuts in storage.
		25.0 gms./1000 bu. (spray)	Post-harvest application. Apply as a mist or space spray over stored peanuts.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**PIPERONYL BUTOXIDE**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables:			
Asparagus	Exempt	0.4	No time limitations.
Beans	Exempt	(spray)	
Beets	Exempt		
Blackeyed Peas	Exempt	3.0	
Broccoli	Exempt	(dust)	
Brussels Sprouts	Exempt		
Cabbage	Exempt		
Cantaloupes	Exempt		
Carrots	Exempt		
Cauliflower	Exempt		
Celery	Exempt		
Collards	Exempt		
Corn	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Eggplants	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		
Kohlrabi	Exempt		
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Mustard Greens	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peas	Exempt		
Peppers	Exempt		
Pimientos	Exempt		
Potatoes	Exempt		
Pumpkins	Exempt		
Radishes	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		
Spinach	Exempt		
Squash (Summer)	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Squash (Winter)	Exempt	0.4 (spray)	No time limitations.
Sweet Potatoes	Exempt		
Swiss Chard	Exempt	3.0	
Tomatoes	Exempt	(dust)	
Turnips	Exempt		
Watermelons	Exempt		
Vegetables:			
Beans	8	5.0 gms./1000	Post-harvest application. Apply directly
Muskmelons	8	cu. ft. (spray)	to commodities in the field, in storage,
Peas	8		or in processing plants.
Tomatoes	8	10.0% (dust)	Post-harvest application. Apply directly
			to commodities in the field, in storage,
			or in processing plants.
		1.0% emulsion dip	Post-harvest application. Dip injured
			vegetables at time of harvest.
Animals:			
Beef Cattle		2.0% (in water)	Dip or spray. No time limitations.
Dairy Cattle			
Goats		2.0% (in oil)	Apply as a mist spray at the rate of 2
Sheep			ounces per animal.
Swine		5.0% (in water)	Formulated with other ingredients. Apply
			2 ounces per ear for control of ear
			ticks.
		5.0% (in oil)	Apply by treadle sprayer at the rate of
			2 ounces per animal.
		20.0% (dust or powder)	Apply to shoulders and back of animal at
			the rate of one tablespoonful per animal.
			Rub into hair. No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PIPERONYL BUTOXIDE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals: (Cont.)</p> <p>Poultry</p>		<p>lbs. actual/A.</p> <p>1.0% (in a water dip)</p> <p>20.0% (dust or powder)</p>	<p>Thoroughly drench birds. No time limitation.</p> <p>Apply by pinch method. No time limitation.</p>
<p>Agricultural Premises:</p> <p>Animal Pens</p> <p>Barns</p> <p>Dairy Barns</p> <p>Grain Bins</p> <p>Milk Rooms</p> <p>Poultry Houses</p> <p>Etc.</p>		<p>3.0% (in water)</p> <p>6.0%</p>	<p>Apply as a surface spray to the point of run-off, or as a mist spray.</p> <p>Aerosol formulation. Fill room with mist and keep closed for 10 minutes.</p>



USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3,5,6-POLYCHLOROBENZOIC ACID\*

PRINCIPAL FORMULATIONS: 47.7% emulsifiable concentrate (as dimethylamine salts of PBA and other polychlorobenzoic acid)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Croplands (undesigned)		lbs. actual/A.  40 (1 lb./1000 sq. ft.)	Apply as spot treatment. Delay cropping of treated areas until chemical is inactivated in the soil. Avoid drift to fields where susceptible crops are to be grown the same season. Do not contaminate water used for irrigation or for human or animal consumption.
Rangelands		40	Apply when weeds and brush are actively growing. Keep grazing animals off treated areas for at least 1 year after treatment. Do not contaminate water used for irrigation or for human or animal consumption.

\* 2,3,5,6-PBA; see also 2,3,6-trichlorobenzoic acid

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# **USDA Summary of Registered Agricultural Pesticide Chemical Uses**

POLYETHYLENE POLYMER CONTAINING 3 PARTS OF [ETHYLENEBIS [DITHIOCARBAMATO]]  
ZINC TO 1 PART OF [[DITHIOBIS[(THIOCARBONYL) IMINOETHYLENE]]  
BIS [DITHIOCARBAMATO]] ZINC

**PRINCIPAL FORMULATIONS:** 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples		8.0	Apply to petal fall. Do not apply within 90 days of harvest.
		6.0	Cover spray. Do not apply within 90 days of harvest.
Peanuts		1.6	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Pecans		16.0	Do not apply after shuck-split.
Potatoes		1.6	No time limitations.
Tomatoes		1.9	Do not apply within 30 days of harvest.

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Replaces page issued 7-1-64

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## POTASSIUM AMMONIUM ETHYLENE BISDITHIOCARBAMATE

**PRINCIPAL FORMULATIONS:** 25% solution; formulation is used in tank mix preparations by reaction of zinc sulphate to form zineb and manganese sulphate to form maneb. Rate of tank mixture equals 3 qts. of 25% solution per 100 gals. of water plus 0.75 lbs. of 36% metallic zinc sulphate & 0.75 lbs. of metallic manganese sulphate. Apply at the rate of 150 gals. of mixture/A.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beans (succulent)	10 maneb 7 zineb	qts./100 gals. water 3.0	7 days.
Broccoli	10 maneb 7 zineb	3.0	7 days.
Brussels sprouts	10 maneb 7 zineb	3.0	7 days.
Cabbage	10 maneb 7 zineb	3.0	7 days.
Cantaloupes	7 maneb 7 zineb	3.0	No time limitations.
Cauliflower	10 maneb 7 zineb	3.0	7 days.
Celery	10 maneb 7 zineb	3.0	No time limitations. Remove residues by washing, stripping, and trimming.
Corn (sweet)	7 maneb (kernel & cob) 7 zineb	3.0	No time limitations. Do not feed treated forage to livestock.

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

POTASSIUM AMMONIUM ETHYLENE BISDITHIOCARBAMATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		qts./100 gals. water	
Cucumbers	7 maneb 7 zineb	3.0	No time limitations.
Endive	10 maneb 25 zineb	3.0	7 days.
Lettuce	10 maneb 25 zineb	3.0	7 days.
Potatoes	0.1 maneb	3.0	No time limitations. Foliage application only.
Squash (summer & winter)	7 maneb 7 zineb	3.0	No time limitations.
Tomatoes	7 maneb 7 zineb	3.0	No time limitations.
Watermelons	7 maneb 7 zineb	3.0	No time limitations.

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Follows page 665a

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## POTASSIUM CRESYLATE\*

**PRINCIPAL FORMULATIONS:** Incidental ingredient with other toxicants

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep		0.1% in water	Formulated with other ingredients for use as a dip. Thoroughly drench animals. No time limitations.

\*Also see "Sodium Arsenite"

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## POTASSIUM CYANATE\*

**PRINCIPAL FORMULATIONS:** 80%-92% wettable powders (crystals);  
50%-83% pellets

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		18.4	Apply when crop is dormant in winter.
Asparagus		18.4	Apply as directed spray to base of plants in fern stage.
Corn		18.4	Preemergence application only.
Garlic		38.6	Preemergence application only.
		22.0	30 days. Post-emergence. Apply in "crook" stage and from first to third true leaf stages. Do not apply in "flag" stage.
Grapes		18.4	Apply not later than petal fall as directed spray at base of crop.
Onions		38.6	Preemergence application only.
		22.0	30 days. Post-emergence. Apply in "crook" stage and from first to third true leaf stages. Do not apply in "flag" stage.
Pastures		12.8	Apply to seedling and large weed plants in sufficient water for uniform coverage.
Peas		6.8	Post-emergence application during seedling stage.
Small Fruits:			
Blackberries		18.4	Apply as directed spray in early spring while crops are dormant.
Dewberries			
Raspberries			
Strawberries		18.4	Apply when plants are dormant in spring.

\*KOCN

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

POTASSIUM CYANATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes (Direct Seeded)		lbs. actual/A.  14.7	Preemergence application 2 days before tomatoes emerge. May be applied with TCA.
Tree fruits		12.8	Apply to seedling and large weed plants in sufficient water for uniform coverage.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## POTASSIUM OLEATE

**PRINCIPAL FORMULATIONS:** With other ingredients as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		10%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-PROPYL-DI-N-PROPYL THIOL CARBAMATE\*

**PRINCIPAL FORMULATIONS:** 75.9% emulsifiable concentrate containing 6 lbs. actual per gallon

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peanuts		lbs. actual/A. 3.0	Preplanting soil incorporation. Plant seed as soon as possible after treatment. Do not feed treated vines to livestock. or Preemergence soil incorporation immediately after planting. Do not feed treated vines to livestock.
Soybeans		3.0	Preemergence soil incorporation.
Tomatoes		4.0	Preplanting soil application. Incorporate 2-4 inches deep and direct seed immediately. or Postemergence application as a directed spray to soil. Incorporate 2-4 inches deep immediately. or Apply at time of last cultivation directed to soil. Incorporate 2-4 inches deep immediately. Do not apply within 8 days of harvest.

\*Proprietary name: Vernam

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Replaces page issued 7-1-64



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PROPYL ETHYL-N-BUTYLTHIOLCARBAMATE

PRINCIPAL FORMULATIONS: 76% emulsifiable concentrate; 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugar Beets		lbs. Actual/A. 6.0	Preplant soil application, incorporate immediately 2-4 inches deep, and seed immediately.
Tomatoes		4.0	Preplant soil application, incorporate immediately 2-4 inches deep. Seed or set transplants immediately. or Post-emergence application directed to soil, incorporate immediately 2-4 inches deep. Do not apply after fruit begins to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PROPYLENE DICHLORIDE

PRINCIPAL FORMULATIONS: Emulsifiable concentrates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apricots		1 oz. per tree in diluted emulsion form	Peach tree borer control. Apply diluted solution around the tree trunk and cover with soil. Do not apply directly to tree trunk. Smaller amounts should be applied to younger trees because of possible phytotoxicity.
Barley		9.0 gal./1000 bu.	Seed treatment only.
Corn		9.0 gal./1000 bu.	Seed treatment only.
Nectarines		1 oz. per tree in diluted emulsion form	Peach tree borer control. Apply diluted solution around the tree trunk and cover with soil. Do not apply directly to tree trunk. Smaller amounts should be applied to younger trees because of possible phytotoxicity.
Oats		9.0 gal./1000 bu.	Seed treatment only.
Peaches		1 oz. per tree in diluted emulsion form	Peach tree borer control. Apply diluted solution around the tree trunk and cover with soil. Do not apply directly to tree trunk. Smaller amounts should be applied to younger trees because of possible phytotoxicity.
		0.2 lbs./tree in diluted emulsion form	Peach tree borer control. Apply around base of tree and cover with soil. Use on mature trees only.
Rice		9.0 gal./1000 bu.	Seed treatment only.
Rye		9.0 gal./1000 bu.	Seed treatment only.
Sorghum (milo)		9.0 gal./1000 bu.	Seed treatment only.
Wheat		9.0 gal./1000 bu.	Seed treatment only.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## PYRETHRINS

**PRINCIPAL FORMULATIONS:** Emulsifiable concentrates containing 1% of pyrethrins, plus 10% of synergists. Petroleum distillate solutions containing 0.05% to 0.4% pyrethrins. Pressurized sprays and aerosols containing 0.1% to 0.6%. Concentrates containing 0.5% to 20% pyrethrins. Dusts containing 0.5% to 2.5%.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. actual/A.	
Blackberries	Exempt	0.5 (dust)	No time limitations.
Blueberries	Exempt	0.05 (spray)	
Boysenberries	Exempt		
Cranberries	Exempt		
Currants	Exempt		
Dewberries	Exempt		
Gooseberries	Exempt		
Grapes	Exempt		
Huckleberries	Exempt		
Loganberries	Exempt		
Raspberries	Exempt		
Strawberries	Exempt		
Youngberries	Exempt		
Deciduous Fruits & Nuts:			
Almonds	Exempt	0.5 (dust)	No time limitations.
Apples	Exempt	0.05 (spray)	
Apricots	Exempt		
Cashews	Exempt		
Cherries	Exempt		
Chestnuts	Exempt		
Dates	Exempt		
Figs	Exempt		
Filberts	Exempt		
Hazelnuts	Exempt		
Hickory Nuts	Exempt		
Nectarines	Exempt		
Olives	Exempt		
Peaches	Exempt		
Pears	Exempt		
Pecans	Exempt		
Persimmons	Exempt		
Plums	Exempt		
Pomegranate	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Deciduous Fruits & Nuts: (Cont.)			
Prunes	Exempt	0.5 (dust)	No time limitations.
Quinces	Exempt	0.05 (spray)	
Walnuts	Exempt		
Forage Crops:			
Alfalfa	Exempt	0.3 (dust)	No time limitations.
Birdsfoot	Exempt	10.0 grams/A.	
Trefoil		(spray)	
Clovers	Exempt		
Grasses	Exempt		
Pastures	Exempt		
Range	Exempt		
Vetch	Exempt		
Others	Exempt		
Fruits & Nuts:			
Almonds	1 ppm of	0.5 grams/	Post-harvest application. Apply directly
Apples	pyrethrins	1000 cu. ft.	to commodities in the field, in storage,
Blackberries	8 ppm of	(spray)	or in processing plants.
Blueberries	piperonyl		
Boysenberries	butoxide	1.0% (dust)	Post-harvest application. Apply directly
Cherries			to commodities in the field, in storage,
Currants			or in processing plants.
Dewberries			
Figs		0.1%	Post-harvest application. Dip injured
Gooseberries		emulsion dip	fruits at time of harvest.
Grapes			
Guavas			
Huckleberries			
Loganberries			
Mangoes			
Oranges			
Peaches			
Pears			
Plums			
Prunes			
Raspberries			
Walnuts			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grain:		lbs. actual/A.	
Barley	3 ppm of	0.6 lbs./1000	Post-harvest application. Apply directly to grain as it is placed in storage.
Birdseed	pyrethrins	bu. (dust)	
Mixtures	20 ppm of	90 grams/1000	
Buckwheat	piperonyl	bu. (spray)	
Corn	butoxide		Post-harvest application. Apply as a surface treatment to bagged or bulk stored grain.
Rice		38.0 grams/1000	
Rye		sq. ft.	
Wheat		(dust or spray)	
Miscellaneous Commodities:			
Cottonseed	1 ppm of	0.5 grams/	Post-harvest application. Apply directly to, and in space over commodities in storage.
Flaxseed	pyrethrins	1000 cu. ft.	
	8 ppm of	1.0% (dust)	
	piperonyl		
	butoxide		
Mushrooms	Exempt	7.0 grams/ standard mushroom house	No time limitations.
Peanuts	1 ppm of	68.0 grams/1000	Post-harvest application. Apply directly to peanuts on conveyor as they are placed in storage.
	pyrethrins	bu.	
	8 ppm of		Post-harvest application. Apply as a surface treatment to bulk or bagged peanuts in storage.
	piperonyl	38.0 grams/1000	
	butoxide	sq. ft.	
		(dust or spray)	
		2.5 grams/1000	Post-harvest application. Apply as a mist or space spray over stored peanuts.
		bu. (spray)	
Vegetables:			
Asparagus	Exempt	20.0 grams/A.	No time limitations.
Beans	Exempt	(spray)	
Beets	Exempt	0.3 (dust)	
Blackeyed Peas	Exempt		
Broccoli	Exempt		
Brussels	Exempt		
Sprouts	Exempt		
Cabbage	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Cantaloupes	Exempt	20.0 grams/A.	No time limitations.
Carrots	Exempt	(spray)	
Cauliflower	Exempt	0.3 (dust)	
Celery	Exempt		
Collards	Exempt		
Corn	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Eggplants	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		
Kohlrabi	Exempt		
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Mustard Greens	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peas	Exempt		
Peppers	Exempt		
Pimientos	Exempt		
Potatoes	Exempt		
Pumpkins	Exempt		
Radishes	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		
Spinach	Exempt		
Squash (Summer)	Exempt		
Squash (Winter)	Exempt		
Sweet Potatoes	Exempt		
Swiss Chard	Exempt		
Tomatoes	Exempt		
Turnips	Exempt		
Watermelons	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables:			
Beans	1 ppm of pyrethrins	0.5 grams./1000 cu. ft.	Post-harvest application. Apply directly to commodities in the field, in storage, or in processing plants.
Muskmelons		(spray)	
Peas	8 ppm of piperonyl butoxide	1.0% (dust)	
Tomatoes		0.1% emulsion dip	Post-harvest application. Dip injured vegetables at time of harvest.
Animals:			
Beef Cattle		0.1% (in oil)	Apply 1.5 ounces per animal in the area of the head and face.
Dairy Cattle			
Goats		0.2% (in water)	Dip or spray. No time limitations.
Sheep			
Swine		0.2% (in oil)	Distillate spray. Apply 2.0 ounces per animal. No time limitations.
		0.5% (in water)	Formulated with other ingredients. Apply 2.0 ounces per ear for control of ticks.
		0.5% (in oil)	Apply by treadle sprayer at the rate of 2.0 ounces per animal.
		2.0% (dust or powder)	Apply to shoulders and back at the rate of 1 tablespoonful per animal. Rub powder into hair. No time limitations.
Poultry		0.1% (in water as a dip)	Thoroughly drench birds. No time limitations.
		2.0% (dust or powder)	Apply by pinch method. No time limitations.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

PYRETHRINS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Agricultural Premises:</p> <p>Animal Pens Barns Dairy Barns Grain Bins Milk Storage Rooms Poultry Houses Etc.</p> <p>Special</p> <p>Food Cartons</p>		<p>lbs. actual/A.</p> <p>0.3% (in water)</p> <p>0.6%</p> <p>250 mgs./ cu. ft. (dust)</p>	<p>Apply as surface spray to point of run-off, or as a mist spray.</p> <p>Aerosol formulation. Fill room with mist and keep closed for 10 minutes.</p> <p>Apply to exterior surfaces of food cartons which are to be placed in large cartons. Do not apply directly to food.</p>



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

ROHIEL\*

**PRINCIPAL FORMULATIONS:** Bolus containing 15 grams of active ingredients. 25% wettable powder; 12% and 24% emulsifiable concentrate; 5% screw worm sprays. 5% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas	0.5	0.25 gram actual/stalk	Enclose stalk of bananas in special bag. After placing open-end of bag over the banana stem, fold the bottom edge of the bag to form a pocket. Tie the bottom of the bag securely. To avoid fruit injury do not allow the Rohiel 25W to contact the bananas.
Beef Cattle Dairy Cattle (non-lactating)	0 in meat	0.275% (mineral feed mixture)	Mix with grain or protein supplement, so that animals will receive 0.3 lbs. of the 0.275% mixture per 100 lbs. of body weight daily for 14 consecutive days. Apply after heel fly activity has ceased and before grubs start to cut in the back. Do not feed to sick or stressed animals. Do not feed to dairy animals or to meat animals within 60 days of slaughter. Do not feed to animals other than cattle.
		0.6% (feed mixture)	Mix with feed so that animals will receive 0.33 lbs. of the 0.6% feed mixture per 100 lbs. of body weight daily for 7 consecutive days. Apply after heel fly activity has ceased and before grubs start to cut in the back. Do not feed to sick or stressed animals. Do not feed to mature dairy animals or to meat animals within 60 days of slaughter. Do not feed to mature dairy heifers within 60 days of freshening. Do not feed to animals other than cattle.
		15.0 gms./ 300 lbs. of body weight	Apply orally in bolus formulations. Do not apply within 50 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 60 days of freshening.

\*O,O-dimethyl O-2,4,5-trichlorophenyl phosphorothioate; proprietary name: "Trolene" and "Rohiel."

\*\* Purified grade only.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

RONNEL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beef Cattle Dairy Cattle (non-lactating) (Cont.)	0 in meat	5.5% in mineral supplement, block, or granular	Free choice feeding. 0.25 lbs. of product per 100 lbs. body weight per head per month. Feed for 75 days or more continuously. Do not feed to dairy cows, or dairy heifers within 60 days of freshening. Do not feed to any cattle within 60 days of slaughter. Use as only source of ronnel medication.
		1.5% (in oil)	Apply by back-rubbers. Do not apply within 6 weeks of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
		0.75% (in water)	Dip or spray. Thoroughly wet animals. Do not apply within 8 weeks of slaughter. Do not apply more frequently than once every 2 weeks. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
		5.0% (screw-worm treatment)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter. Do not apply to lactating dairy animals, or to dry dairy animals within 21 days of freshening.
		5.0% (dust)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.
Goats Sheep		0.5% (in water)	Dip or spray. Thoroughly wet animals. Do not apply within 12 weeks of slaughter. Do not apply more frequently than once every 2 weeks. Do not apply to lactating dairy animals, or dry dairy animals within 21 days of freshening.
		5.0% (screw-worm treatment)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter. Do not apply to lactating dairy animals or to dry dairy animals within 21 days of freshening.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

RONNEL

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Swine		0.5% (in water)	Dip or spray. Do not apply within 6 weeks of slaughter. Do not apply more frequently than once every 2 weeks.
		5.0% (screw-worm treatment)	Apply locally to wounds, cuts, and scratches. Do not apply within 21 days of slaughter.
Bedding		0.025 lbs. actual per 100 sq.ft.	Remove swine from treated bedding or replace bedding with untreated bedding, at least two weeks before slaughter.
Agricultural Premises:			
Barns		1.0% (in water)	Apply to interior surfaces as a residual spray at the rate of 3 gallons per 1000 sq. ft. Can be used as a bait spray by adding sugar and molasses. Do not contaminate milk or milking equipment.
Barn yards			
Dairy barns			
Hog pens			
Milk rooms			
Poultry houses			
Etc.			
		2.0% (in water)	Liquid bait formulations. Apply by brushing or spraying on walls, window sills, doorways, and other places where flies congregate. Do not contaminate milk or milking equipment.
		1.0%	Dry sugar bait formulation. Apply to floors, window sills, walks, and manure piles at the rate of 0.5 pound per 1000 sq. ft. Do not contaminate milk or milking equipment.
		2.0% (in water)	Spray poultry droppings under cages.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

ROSH

**PRINCIPAL FORMULATIONS:** With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		10.0%	Formulated with various other ingredients as screw-worm remedies. Apply locally to wounds, etc. as needed until wounds have healed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ROTENONE\*

**PRINCIPAL FORMULATIONS:** 0.75% to 1.5% dusts; emulsifiable concentrates containing 2% or 3%; wettable powders containing about 5%. (All formulations include the usual amount of related resins)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. Actual/A.	
Blackberries	Exempt	0.75	1 day.
Blueberries	Exempt		
Boysenberries	Exempt		
Cranberries	Exempt		
Currants	Exempt		
Dewberries	Exempt		
Gooseberries	Exempt		
Grapes	Exempt		
Huckleberries	Exempt		
Loganberries	Exempt		
Raspberries	Exempt		
Strawberries	Exempt		
Youngberries	Exempt		
Citrus Fruits:			
Grapefruits	Exempt	2.0	1 day.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangeloes	Exempt		
Tangerines	Exempt		
Deciduous Fruits:			
Apples	Exempt	1.0	1 day.
Apricots	Exempt		
Cherries	Exempt		
Dates	Exempt		
Figs	Exempt		
Nectarines	Exempt		
Olives	Exempt		
Peaches	Exempt		
Pears	Exempt		
Persimmons	Exempt		

\* Plus related derris and cube resins and extractives.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ROTENONE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Deciduous Fruits (cont.)			
Plums	Exempt	1.0	1 day.
Pomegranate			
Prunes			
Quinces			
Forage Crops:			
Alfalfa	Exempt	0.75	1 day.
Birdsfoot	Exempt		
Trefoil			
Clovers	Exempt		
Grasses (All)	Exempt		
Lespedeza	Exempt		
Pastures	Exempt		
Vetch	Exempt		
Asparagus	Exempt	0.6	1 day.
Beans	Exempt	1.0	1 day.
Beets	Exempt	0.6	1 day.
Corn	Exempt	1.75	1 day.
Eggplants	Exempt	1.0	1 day.
Mushrooms	Exempt	0.75% (dust)	Thoroughly dust individual beds especially after picking. Do not apply within one day of harvest.
Mustard	Exempt	0.6	1 day.
Peas	Exempt	0.6	1 day.
Potatoes	Exempt	1.0	1 day.
Radishes	Exempt	0.6	1 day.
Strawberries	Exempt	0.6	1 day.
Tomatoes	Exempt	1.0	1 day.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ROTENONE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Vegetables:			
Blackeyed Peas	Exempt	0.5	1 day.
Broccoli	Exempt		
Brussels			
Sprouts	Exempt		
Cabbage	Exempt		
Cantaloupes	Exempt		
Carrots	Exempt		
Cauliflower	Exempt		
Celery	Exempt		
Collards	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		
Kohlrabi	Exempt		
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peppers	Exempt		
Pimentoses	Exempt		
Pumpkins	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		
Spinach	Exempt		
Squash			
(Summer)	Exempt		
Squash			
(Winter)	Exempt		
Sweet Potatoe	Exempt		
Swiss Chard	Exempt		
Turnips	Exempt		
Watermelons	Exempt		



**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**ROTENONE**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:		lbs. actual/A.	
Cattle (all)		0.12% (in water)	Dip or spray. Thoroughly drench animal. Apply spray to back of animal at 300 psi for control of cattle grubs.
		0.5% (in water)	Apply to back and shoulders of animal as a wash. Thoroughly scrub back with a stiff brush as application is made.
		0.25% (in oil)	Apply by back-rubbers.
		2.5% (dust)	Apply up to 6 ounces on back and shoulders of each animal and work into hair with hands or a brush.
		2.0% (dust)	Thorough application to animals.
		0.1% (in oil)	Apply once or twice daily at the rate of 1 ounce per animal.
Goats Sheep		0.03% (in water)	Dip or spray. Thoroughly drench animals.
		2.0% (dust)	Thorough application to animals. Work dust into fleece to skin.
Poultry		2.0% (dust)	Thorough application to birds. Work dust into feathers.
		0.25% (in oil)	Apply by rubbing devices.
		2.0% (dust)	Thorough application to animals.
		0.03% (dust)	Dip or spray. Thoroughly drench animal.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

ROTEENONE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. Actual/A.	
Barns		0.1% (in oil or water)	Apply as a surface or space spray. Do not contaminate feed, milk, or milking equipment.
Dairy Barns			
Hog Pens			
Milk Rooms		1.0% (dust)	Apply liberally to all infested areas. Do not contaminate feed, milk, or milking equipment.
Poultry Houses			
		2.0% (dust)	Apply liberally to all interior surfaces. Replace nesting and litter.
Special:			
Outdoors		0.25 lbs. (in oil)	Apply to large areas as mosquito larvacide.
		3.0% (in oil)	Apply by fogging machines. Usually formulated with synergized pyrethrins.
Indoors		5.0% (in oil)	Apply by fog generators. Usually formulated with synergized pyrethrins.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## RYANIA

**PRINCIPAL FORMULATIONS:** 100% dust; dusts or wettable powders ranging from 40%-100% Rynia, with or without synergists

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Apples	Exempt	72.0	No time limitations.
Corn	Exempt	20.0	No time limitations.
Cranberries	Exempt	25.0	No time limitations.
Pears	Exempt	72.0	No time limitations.
Quinces	Exempt	72.0	No time limitations.
Sugarcane	Exempt	8.0	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

SABADILLA

**PRINCIPAL FORMULATIONS:** 10% - 20% dusts; certain specialized formulations.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs./A. (whole ground seed)	
Blackberries	Exempt	12.0	No time limitations.
Blueberries	Exempt		
Boysenberries	Exempt		
Cranberries	Exempt		
Currants	Exempt		
Dewberries	Exempt		
Gooseberries	Exempt		
Grapes	Exempt		
Huckleberries	Exempt		
Loganberries	Exempt		
Raspberries	Exempt		
Strawberries	Exempt		
Youngberries	Exempt		
Citrus Fruits:			
Grapefruits	Exempt	0.2 lbs./A. (Alkaloid)	No time limitations.
Kumquats	Exempt		
Lemons	Exempt		
Limes	Exempt		
Oranges	Exempt		
Tangeloes	Exempt		
Tangerines	Exempt		
Deciduous Fruits:			
Apples	Exempt	12.0	No time limitations.
Apricots	Exempt		
Cherries	Exempt		
Dates	Exempt		
Figs	Exempt		
Nectarines	Exempt		
Olives	Exempt		
Peaches	Exempt		
Pears	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SABADILLA

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Deciduous Fruits: (Cont.)		lbs./A. (whole ground seed)	
Persimmons	Exempt	12.0	No time limitations.
Plums	Exempt		
Pomegranate	Exempt		
Prunes	Exempt		
Quinces	Exempt		
Forage Crops:			
Alfalfa	Exempt	10.0	No time limitations.
Birdsfoot			
Trefoil	Exempt		
Clovers	Exempt		
Grasses (All)	Exempt		
Lespedeza	Exempt		
Pasture Grasses	Exempt		
Vetch	Exempt		
Vegetables:			
Asparagus	Exempt	10.0	No time limitations.
Beans	Exempt		
Beets	Exempt		
Blackeyed Peas	Exempt		
Broccoli	Exempt		
Brussels			
Sprouts	Exempt		
Cabbage	Exempt		
Cantaloupes	Exempt		
Carrots	Exempt		
Cauliflower	Exempt		
Celery	Exempt		
Collards	Exempt		
Corn	Exempt		
Cowpeas	Exempt		
Cucumbers	Exempt		
Eggplants	Exempt		
Endive	Exempt		
Garlic	Exempt		
Horseradish	Exempt		
Kale	Exempt		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SABADILLA

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs./A. (whole ground seed)	
Kohlrabi	Exempt	10.0	No time limitations.
Leeks	Exempt		
Lettuce	Exempt		
Melons	Exempt		
Mustard Greens	Exempt		
Okra	Exempt		
Onions	Exempt		
Parsnips	Exempt		
Peas	Exempt		
Peppers	Exempt		
Pimentos	Exempt		
Potatoes	Exempt		
Pumpkins	Exempt		
Radishes	Exempt		
Rutabagas	Exempt		
Salsify	Exempt		
Shallots	Exempt		
Spinach	Exempt		
Squash (Summer)	Exempt		
Squash (Winter)	Exempt		
Sweet Potatoes	Exempt		
Swiss Chard	Exempt		
Tomatoes	Exempt		
Turnips	Exempt		
Watermelons	Exempt		
Animals:			
Beef Cattle		10.0%	Formulated with other ingredients.
Dairy Cattle		Powder	Apply liberally to animals.
Goats			
Poultry			
Sheep			
Swine			

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SCHRADAN\*

**PRINCIPAL FORMULATIONS:** Technical material containing about 70% octamethyl pyrophosphoramidate; emulsifiable concentrate containing from 2 to 4 lbs. of active ingredient per gallon; 10% aerosols for greenhouse use

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. Actual/A. 1.5	Apply to young plants 4 weeks after planting. Make a second application 3-4 weeks later if necessary.
Lettuce		2.0	40 days.
Walnuts (including English walnuts)	0.75	1.0	Single application. Do not apply after nuts are 1/2" in diameter. Do not apply later than June 10 in northern California or June 30 in southern California.

\* Octamethyl Pyrophosphoramidate; also known as "OMPA"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SESAME OILS AND EXTRACTIVES

**PRINCIPAL FORMULATIONS:** Ordinarily used in combination with pyrethrins

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables:			
Asparagus		12.0% (in water)	Apply as a mist spray to all plant surfaces. No time limitations.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SESAME OILS AND EXTRACTIVES

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)			
Squash (Summer)		12.0% (in water)	Apply as a mist spray to all plant surfaces. No time limitations.
Squash (Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			
Animals:			
Beef Cattle		0.7% (in oil)	Apply as a mist spray at the rate of 2 ounces per animal the size of an adult cow. Apply 2.5 ounces per animal and rub into hair for control of lice. Do not repeat the latter treatment within 3 weeks.
Dairy Cattle			
Goats			
Sheep			
Swine			
		1.0% (in water)	Dip or spray. Thorough application to animals.
Agricultural Premises:			
Barns		12.0% (in oil)	Apply as a space spray. Fill rooms with mist and keep closed for 20 minutes. Do not contaminate milk or milk handling equipment.
Dairy Barns			
Grain Bins			
Milk Rooms			
Poultry Houses			
Etc.			



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

SESONE\*

PRINCIPAL FORMULATIONS: 17% cartridge; 90% wettable powder, 9% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Asparagus	0.5	5.5	Preemergence application or after cutting season.
Beans			
Lima		3.6	7 days. Apply when beans are well established, usually 3-4 weeks after planting.
Snap			
Cabbage		3.6	Apply between rows. Avoid spraying edible portions of vegetables or spraying within 6 in. of plant main stem.
Corn (seed only)			
Field		3.6	Anytime after corn is 1-2 in. tall. Make final application at layby. Do not use on corn intended for food or feed.
Sweet			
Eggplant		3.6	Apply between rows. Avoid spraying edible portions of vegetables or spraying within 6 in. of plant main stem.
Lettuce		3.6	Apply between rows. Avoid spraying edible portions of vegetables or spraying within 6 in. of plant main stem.
Onions		3.6	Apply between rows. Avoid spraying edible portions of vegetables or spraying within 6 in. of plant main stem.
Peanuts	6 (peanuts, hulls, & hay)	2.7	Preemergence application at time of planting. or Soil application at cracking time (5-7 days after planting). Use in combination with 1.5 lbs. of DNEP equivalent in alkanol amine form. or (Continued)

\* Sodium 2,4-dichlorophenoxyethyl sulfate; SES

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

SESONE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Peanuts (Cont.)	6 (peanuts, hulls, & hay)	2.7	Post-emergence application after first cultivation when crop is 2-3 inches tall.
Peppers		3.6	Apply between rows. Avoid spraying edible portions of vegetables or spraying within 6 in. of plant main stem.
Potatoes	6	3.6	Preemergence application after planting, or post-emergence application monthly after cultivation and at lay-by.
Radishes		3.6	Apply between rows. Avoid spraying edible portions of vegetables or spraying within 6 in. of plant main stem.
Raspberries		5.4	Established plantings. Apply as a directed spray to soil.
Strawberries	2	5.5	Apply to first year plantings after plants are well established (usually about 10 days after planting) and monthly thereafter following cultivations. Avoid application when first runner plants are rooting. or Apply to established plantings before blossoming and after picking following each cultivation. Do not apply within 7 days, or during harvest season.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SILICA AEROGEL

**PRINCIPAL FORMULATIONS:** 100%; also used with various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Agricultural Premises:</p> <p>Barns Feed Rooms Grain Bins Etc. (exclude dairy barns)</p> <p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Sheep Swine</p>		<p>1.25 lbs./ 1000 sq. ft.</p> <p>10.0%</p>	<p>Formulated with other ingredients and applied liberally to infested area. Do not contaminate feed or drinking water.</p> <p>Formulated with other ingredients and applied locally as screw-worm or ear tick remedies.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SILVEX\*

**PRINCIPAL FORMULATIONS:** Emulsifiable concentrates 59-65% including butoxyethanol, iso-octyl and propylene glycol butyl ether esters; 10.4% amine salt solutions; 10.6% triethanolamine salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		lbs. Actual/A. 20 ppm	Preharvest drop. Apply 4 days before harvest drop normally begins. No preharvest limitations.
Pastures & Ranges		61 grams/A. 4.0	Concentrated spray application. Woody plants and brush. Apply in late spring thru season until 3 weeks before frost. Do not use on freshly seeded pastures or rangelands.
		0.75	Mesquite control. Make an application in late spring when plants have leaves fully expanded.
Pears		7.5 ppm	Post-harvest application to trees immediately after harvest.
Prunes		20 ppm	Do not apply within 60 days of harvest.
Sugarcane:			
Louisiana		1.0	Preemergence use only. Apply shortly before "seeds" (shoots) emerge. In shaved or off-barred cane, apply immediately following this operation. Do not spray after sugarcane is 3-3 1/2 ft. high.
Hawaii		5.0	Preemergence use only. Apply immediately after planting or ratooning and before cane emerges. Do not apply more than twice to any one crop.
Rice		1.5	Treat 4-8 weeks after emergence of rice. If flooded, treat 7-9 weeks after seeding.

\* 2(2,4,5-trichlorophenoxy) propionic acid; 2,4,5-TP

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

SILVEX

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Lakes &amp; Ponds</p> <p>Submerged Weeds</p> <p>Emerged Weeds</p>		<p>lbs. actual/A. ft. of water</p> <p>5</p> <p>8</p>	<p>Apply in late spring or early summer as spray over surface of lake or pond.</p> <p>Apply as above or on emerged foliage. Avoid use in waters intended for irrigation, crop spraying or domestic and animal water supplies. Some fish kill may occur.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SIMAZINE\*

**PRINCIPAL FORMULATIONS:** 50% and 80% wettable powders; 4%, 8%, and 10% granular formulations; 25% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		3.2	Broadcast single soil application in late fall or early spring. Do not apply to foliage or while nuts are on ground.
Apples		4.0	Apply in spring before weeds emerge. Apply only to trees which have been established 1 year or more.
Artichokes		4.0	Directed spray after last fall tillage around established crop plants.
Asparagus (established)		4.0	Apply in spring after discing and prior to weed and spear emergence. Repeat application at end of harvest season after weedy growth has been removed.
Avocados		4.0	Broadcast single soil application in late fall to mid-winter. Do not apply to foliage or fruit.
Blackberries		4.0	Broadcast soil application in spring before weeds emerge and before buds break; or broadcast soil application in fall. Do not apply when fruit is present.
Blueberries		4.0	Broadcast soil application in <del>spring</del> before weeds emerge and before buds break; or broadcast soil application in fall. Do not apply when fruit is present.
Boysenberries		4.0	Broadcast soil application in spring before weeds emerge and before buds break; or broadcast soil application in fall. Do not apply when fruit is present.
Cherries (sour)		4.0	Apply in spring before weeds emerge. Apply only to trees which have been established 1 year or more.

\*2-chloro-4,6-bis (ethylamino)-s-triazine

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cherries (sweet)		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.
Corn		4.0	Preemergence. Do not replant area to any other crop during season.
Corn Sweet		4.0	Preplanting application in fall. Plow land in spring just prior to planting corn. Do not plant treated areas in crops other than corn during the same season.
		2.0	Preemergence application immediately after planting. Do not plant treated areas in crops other than corn during the same season.
Cranberries		4.0	Postharvest or dormant overall soil application. Use limited to Massachusetts.
		2.0	Apply in spring before weeds emerge.
Grapefruit Established		2.0	California. Apply in fall following final preparation of grove. Repeat annually. Do not contaminate fruit with chemical.
		9.6	Florida and Texas. Apply in spring (in March-April). Repeat annually. Do not contaminate fruit with chemical.
Grapes		4.8	Apply in spring before weeds emerge. Do not apply in vineyards less than 3 years old.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Lemons		2.0	California and Arizona. Apply in fall following final preparation of grove and prior to weed emergence. Repeat annually in midwinter or apply once in fall and repeat in spring prior to weed emergence. Do not apply in groves less than one year old or in nurseries. Avoid contact with fruit.
Loganberries		4.0	Broadcast soil application in spring before weeds emerge and before buds break; or broadcast soil application in fall. Do not apply when fruit is present.
Macadamia orchards		4.0	Apply just prior to weed emergence or just before harvest and repeat immediately after gathering nuts from ground. Do not exceed 8 lbs. actual per acre per year.
Olives		4.0	Broadcast singel soil application in late fall or mid-winter. Do not apply to foliage or fruit.
Oranges Established		9.6	Florida and Texas. Apply in spring (March-April). Repeat annually. Do not contaminate fruit with chemical.
		2.0	California and Arizona. Apply in fall following final preparation of grove and prior to weed emergence. Repeat annually in midwinter or apply once in fall and repeat in spring prior to weed emergence. Do not apply in groves less than one year old or in nurseries. Avoid contact with fruit.
Pasture Grass (Bermuda)		3.2	Apply in late winter or early spring after sprigging and before weed seeds germinate. Do not graze livestock on treated areas or cut for hay within 5 months after application.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

SIMAZINE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peaches		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.
Pears		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.
Pineapple		6.0	Apply as an overall spray immediately after planting (and after harvest if a ratoon crop is to be grown) and prior to weed emergence. Repeat application of 1.6 lbs. actual per acre as needed. Do not apply more than 30 lbs. actual per acre per crop cycle. Do not apply within 45 days of harvest.
Plums		4.0	Soil application around established trees after harvest to early spring. Do not apply to foliage or fruits.
Raspberries		4.0	Broadcast soil application in spring before weeds emerge and before buds break; or broadcast soil application in fall. Do not apply when fruit is present.
Strawberries (Marshall, Northwest)		1.0	Apply 3-4 weeks after planting. Second application in fall of first year. Postharvest application to be followed by irrigation.
Sugarcane		4.0	Apply at or immediately after planting and before weeds or cane emerge. For ratoon crop, apply immediately after harvest, or before cane emerges. or Postemergence. Apply once over cane or two directed sprays between rows. Do not apply more than 10 lbs. per acre per crop. Do not apply after "close in."
Walnuts		4.0	Broadcast single soil application after harvest. Do not apply to foliage.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM ACID METHANE ARSONATE

PRINCIPAL FORMULATIONS: 34.66% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A.  2.0	Postemergence application as a directed spray to weeds when cotton is 5 or more inches tall. Do not feed treated forage to livestock. Do not apply after first bloom.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM ARSENATE\*

**PRINCIPAL FORMULATIONS:** Wettable powders and baits

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
All Crops		6.0% (bait formula- tions)	Apply bait in small containers near ant colonies, etc. Do not contaminate edible parts.
Animals:			
Goats		0.15% (in water)	Dip or spray. Formulated with other ingredients. Thorough application to animals.
Sheep			

\* See also "Sodium Arsenite" and "Arsenic Trioxide"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM ARSENITE\*

PRINCIPAL FORMULATIONS: 27.0% to 74.3% liquids,  
90.7% to 95.0% powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. actual/A. (as $As_2O_3$ )	
Blackberries		1.0	Dry bait formulation. Do not allow bait to come in contact with plants.
Blueberries			
Boysenberries			
Cranberries			
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Strawberries			
Youngberries			
Grapes		9.0	Dormant application to vines only.
Field, Fiber, and Forage Crops:			
Alfalfa		1.0	Dry bait formulation. Do not allow bait to come in contact with plants.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			

\* See also "Arsenic Trioxide"

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ARSENITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber, and Forage Crops: (Cont.)		lbs. actual/A. (as As <sub>2</sub> O <sub>3</sub> )	
Peanuts Popcorn Rice Rye Safflower Sorghum Soybeans Sugar Beets Sugarcane Vetch Wheat		1.0	Dry bait formulation. Do not allow bait to come in contact with plants.
Potatoes		14.5	To kill vines and weeds. Do not apply closer than 7-10 days before harvest. Do not apply to exposed tubers.
Tree Fruits:			
Apples Apricots Avocados Cherries Dates Figs Grapefruit Guavas Kumquats Lemons Limes Mangoes Nectarines Olives Oranges Papayas Passion Fruit Peaches Pears		1.0      3.0%	Dry bait formulation. Apply to soil under trees. Do not allow bait to come in contact with trees or fruit.    Sweet bait formulation. Apply one ounce per tree in a small container. Do not allow bait to come in contact with trees. Do not contaminate fruit.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ARSENITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tree Fruits: (Cont.)		lbs. actual/A. (as $As_2O_3$ )	
Persimmons		1.0	Dry bait formulation. Apply to soil under trees. Do not allow bait to come in contact with trees or fruit.
Plums			
Pomegranate			
Prunes			
Quinces		3.0%	Sweet bait formulation. Apply one ounce per tree in a small container. Do not allow bait to come in contact with trees. Do not contaminate fruit.
Tangeloes			
Tangerines			
Vegetables:			
Asparagus		1.0	Dry bait formulation. Do not allow bait to come in contact with plants. Do not contaminate edible plant parts.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ARSENITE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A. (as $\text{As}_2\text{O}_3$ )	
Peas		1.0	Dry bait formulation. Do not allow bait to come in contact with plants. Do not contaminate edible plant parts.
Peppers			
Pimientos			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash (Summer)			
Squash (Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			
Animals:			
Beef Cattle		0.25% (in water)	Dip. Formulated with other ingredients and applied for tick control. Use only for the treatment of slaughter animals or in officially prescribed quarantine treatments.
Dairy Cattle			
Goats			
Sheep			
Aquatic Weeds		10 ppm	Apply uniformly over surface of ponds and lakes. Treat small areas of water at 5-7 day intervals to prevent fish suffocation. Keep children, pets, livestock, and poultry from treated areas.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM CHLORATE

PRINCIPAL FORMULATIONS: 40% wettable powder; 12%, 20%, and 23.5% dusts;  
4.7%, 18.2%, 18.5%, 19%, 22%, and 28% liquids;  
30% granular (with metaborate)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans (dry)		4.1	7 days. Preharvest defoliation.
Cotton		5.0	Preharvest defoliation and desiccation. Do not apply within 7 days of harvest. Do not graze treated areas or feed gin waste to livestock.
		261	Spot treatment for Johnson grass. Wet foliage and soil. Do not graze treated areas or feed gin waste to livestock.
Potatoes		16.0	Do not apply within 2 weeks of harvest.
Tomato		4.0	Plant desiccant. Apply after first picking. Repeat application after second picking if necessary.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM CRESYLATE\*

PRINCIPAL FORMULATIONS: 11.0% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep		0.1% (in water)	Formulated with other ingredients for use as a dip. Thoroughly drench animals. No time limitations.

\*Also see "Sodium Arsenite"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM DIETHYL DITHIOCARBAMATE(I)

**PRINCIPAL FORMULATIONS:** 40% and 58.3% liquids + ferric or zinc sulfate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	7 (as ferban)	1½ pts. + ½ lb. ferric sulfate per 100 gals.  ¾ pt. + ¼ lb. ferric sulfate per 100 gals.	7 days.  Late cover sprays.
Beans	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	Do not apply within 4 days of picking.
Cabbage	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	7 days.
Cantaloupe	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Celery	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Cucumbers	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Cucurbits	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Grapes	7 (as ferban)	2 pts. + ¾ lb. ferric sulfate/ 100 gals.	7 days.
Melons	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM DIMETHYL DITHIOCARBAMATE(I)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Raspberries	7 (as ferbam)	1½ pts. + ½ lb. ferric sulfate/ 100 gals.	Petal fall.
Spinach	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Squash	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.
Tomatoes	7 (as ziram)	1½ pts. + 2 lbs. zinc sulfate per 100 gals.	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM DIMETHYL DITHIOCARBAMATE (II)

**PRINCIPAL FORMULATIONS:** 58.3% wettable powder + zinc sulfate 36.7%;  
40% liquid + zinc sulfate 36%

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	as ziram		
Beans	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	4 days.
Cabbage	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	7 days.
Cantaloupes	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	No time limitations.
Celery	7	1.5 lbs.w.p. + 2 lbs. zinc sul- fate/100 gals.	Remove excess residues by stripping, trimming and washing.
		1 qt. 40% liquid + 1 lb. zinc sul- fate/100 gals.	Remove excess residues by stripping, trimming and washing.
Cucumbers	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	No time limitations.
		1 qt. 40% liquid + 1 lb. zinc sul- fate/100 gals.	No time limitations.
Cucurbits	7	1 qt. 40% liquid + 1 lb. zinc sul- fate/100 gals.	No time limitations.
Melons	7	1 qt. 40% liquid + 1 lb. zinc sul- fate/100 gals.	No time limitations.
Potatoes		1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM DIMETHYL DITHIOCARBAMATE (II)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes (Cont.)		1 qt. 40% liquid + 1 lb. zinc sul- fate/100 gals.	No time limitations.
Spinach	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	Plant bed treatment only.
Squash	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	No time limitations.
Tomatoes	7	1.5 lbs. w.p. + 2 lbs. zinc sul- fate/100 gals.	No time limitations.
		1 qt. 40% liquid + 1 lb. zinc sul- fate/100 gals.	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM DIMETHYL DITHIOCARBAMATE PLUS 2-MERCAPTOBENZOTHIAZOLE (MIXTURE)

**PRINCIPAL FORMULATIONS:** 27.6% Sodium dimethyl dithiocarbamate and 2.4% sodium salt of 2-mercaptobenzothiazole

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		2 qts. + 1 lb. zinc sulfate/ 100 gals.	5 days.
Sorghum		4 oz./bu.	Seed treatment only. Do not use treated seed for food or feed.
Sweet Potatoes		1/50	Seed piece treatment. Do not use for food or feed.
Sweet Potato (washing machine)		1/50	Spray empty machine thoroughly. Flush 3-5 minutes before reusing machine.
Tomatoes		2 qts. + 1 lb. zinc sulfate/ 100 gals.	5 days.
Wheat		4 oz./bu.	Seed treatment. Do not use treated seed for food or feed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ETHYL MERCURI THIOSALICYLATES\*

PRINCIPAL FORMULATIONS: 6.0% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cottonseed:		oz./100 lbs.	
Acid delinted		2.0	Seed treatment only. Slurry mist or ready mix treater. Do not use treated seed for food, feed, or oil purposes.
Machine delinted		3.0	Seed treatment only. Slurry mist or ready mix treater. Do not use treated seed for food, feed, or oil purposes.

\*Proprietary Name: "Thimerosol"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM FLUORIDE

**PRINCIPAL FORMULATIONS:** 25%-95% powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Poultry</p>		<p>0.8% (in water)</p> <p>95.0% (powder)</p>	<p>Dip. Thoroughly drench birds.</p> <p>Thorough application to birds.</p>
<p>Agricultural Premises:</p> <p>Barns Grain Bins Poultry Houses Sheep Folds Etc. (exclude dairy barns)</p>		<p>10.0 oz./1000 sq. ft of floor space</p>	<p>Apply powder in cracks etc. where insects hide or congregate. Do not contaminate feed or drinking water.</p>

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM FLUOSILICATE

**PRINCIPAL FORMULATIONS:** 5% baits; 2% dust with other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tree Fruits:		lbs. Actual/A.	
Apples		4.0	Wet or dry bait formulations. Do not contaminate foliage or fruit.
Apricots			
Avocados			
Cherries			
Dates			
Figs			
Grapefruit			
Guavas			
Kumquats			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			
Vegetables:			
Asparagus		4.0	Wet or dry bait formulations. Spread on ground around plants. Do not contaminate foliage or edible parts.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM FLUOSILICATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Carrots		4.0	Wet or dry bait formulations. Spread
Cauliflower			on ground around plants. Do not
Celery			contaminate foliage or edible parts.
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentos			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash			
(Summer)			
Squash			
(Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM FLUOSILICATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Cattle Hogs Sheep</p> <p>Agricultural Premises:</p> <p>Hog Houses Other</p>		<p>lbs. actual/A.</p> <p>2.0% (dust)</p> <p>2.0% (dust)</p>	<p>Apply thoroughly to animals.</p> <p>Apply thoroughly to exterior and interior surfaces including litter and bedding.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ISOPROPYL XANTHATE\*

PRINCIPAL FORMULATIONS: 91% and 100% wettable powders

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. Actual/A.	
Beans			
Lima		9.1	Preemergence application.
Snap		8.0	Post-emergence application. Spray before trifoliate leaves open.
Broccoli		9.1	Preemergence application.
		8.0	Post-emergence application as directed spray below foliage before edible portions appear.
Cabbage		9.1	Preemergence application.
		8.0	Post-emergence application as directed spray below foliage before edible portions appear.
Carrots		7.2	Post-emergence application as directed spray below foliage before edible portions appear.
Cauliflower		9.1	Preemergence application.
		8.0	Post-emergence application as directed spray below foliage before edible portions appear.
Corn		9.1	Preemergence application.
		8.0	Post-emergence application when plants are 8-10 inches high. Direct spray to base of plants.
Dill		9.1	Preemergence application.
Kohlrabi		9.1	Preemergence application.

\* IPX

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ISOPROPYL XANTHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Kohlrabi (Cont.)		8.0	Post-emergence application as directed spray below foliage before edible portions appear.
Onions			
Sets		9.1	Preemergence application.
		8.0	Post-emergence application as directed spray below foliage before edible portions appear.
Peas		9.1	Preemergence application.
		8.0	Post-emergence application as directed spray below foliage before edible portions appear.
Peppers		7.2	Post-emergence application as directed spray below foliage before edible portions appear.
Potatoes		9.1	Preemergence application.
		8.0	Post-emergence application as directed spray below foliage before edible tubers form.
Sugar Beets		9.1	Preemergence application.
Tomatoes		9.1	Preemergence application.
Vegetables:			
Asparagus		9.1	Preemergence application.
Beans			
Blackeyed Peas		8.0	Post-emergence. Use as spray directed toward base of plant when plant stem reaches tough or woody state. Do not apply to edible parts of food crops or surrounding foliage.
Broccoli			
Brussels			
Sprouts			
Cantaloupes			
Carrots			
Cauliflower			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM ISOPROPYL XANTHATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables: (Cont.)			
Celery		9.1	Preemergence application.
Collards			
Corn		8.0	Post-emergence. Use as spray directed toward base of plant when plant stem reaches tough or woody state. Do not apply to edible parts of food crops or surrounding foliage.
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Melons			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Squash (Summer)			
Squash (Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**SODIUM PENTACHLOROPHENATE**

**PRINCIPAL FORMULATIONS:** 88% pellets; 31% and 41.5% liquids;  
84.9%, 88%, 37% and 42.5% wettable powders;  
97% shotted

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		30.0	Dormant application only. Ground equipment.
Apricots		17.0	Dormant application only. Ground equipment.
Asparagus		17.6	Preemergence application 4-5 days after planting.
Barley		17.6	Preemergence application 4-5 days after planting.
Beans			
Green Lima Snap		22.0	Preemergence application at planting, or prior to emergence.
Wax		16.0	Preemergence application soon after planting.
Beets		3.5	Preemergence application 3-4 days after planting. Used in combination with 9 lbs. actual TCA per acre.
Corn		22.0	Preemergence application at planting, or prior to emergence.
Cucumbers		17.6	Preemergence application 4-5 days after planting.
Cucurbits		17.6	Preemergence application 4-5 days after planting.
Horseradish		17.6	Preemergence application 4-5 days after planting.
Melons		22.0	Preemergence application at planting, or prior to emergence.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM PENTACHLOROPHENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Peanuts		17.6	Preemergence application 4-5 days after planting.
Peas		22.0	Preemergence application at planting, or prior to emergence.
Peppermint		17.6	Preemergence application 4-5 days after planting.
Pineapple		22.5	Preemergence application to bare soil between paper mulch beds.
		13.5	Postemergence application, directed on weed seedlings. Avoid application to foliage of pineapple plants. Do not apply in fruiting fields, at red bud stage or later.
Potatoes		22.0	Preemergence application at planting, or prior to emergence.
Prunes		30.0	Dormant application only. Ground equipment.
Pumpkins		22.0	Preemergence application at planting, or prior to emergence.
Sorghum		17.6	Preemergence application 4-5 days after planting.
Soybeans		27.0	Preemergence application at planting, or immediately after.
Squash		22.0	Preemergence application at planting, or prior to emergence.
Sugarcane		54.2	Preemergence application to soil and weeds immediately after planting or ratooning.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM PENTACHLOROPHENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugarcane (cont.)		lbs. actual/A.  11.4	Postemergence application as a directed spray to weed seedlings when cane is 1 1/2-2 feet tall. Repeat application when new weeds appear. Do not apply after close in of cane. Do not exceed 180 lbs. actual chemical per season in Hawaii.
Vineyards:			
Grapes		10.8	Dormant application as a directed ground spray.
Watermelons		22.0	Preemergence application at planting, or prior to emergence.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM o-PHENYLPHENATE

**PRINCIPAL FORMULATIONS:** 97.0% wettable powder  
 2.0%, 23.0%, 30.0%, 34.0%, and 40.0% solutions  
 1.0% wax emulsion

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	25	0.45% solution	Postharvest treatment. Dip fruit for 45 seconds and rinse with fresh water.
Bananas		2.0%	Postharvest treatment. Spread evenly over exposed cut stem area or crown of hand area. Do not contaminate skin or fruit.
Cantaloupes	125 (not more than 10 in edible portion)	1.5% solution	Postharvest dip or spray. Allow to drain; do not rinse.
Carrots	20	0.1% (in water)	Postharvest dip, flood or spray.
		0.5%	Solvent system wax applicator.
Cherries	5	1.0% water solution with wetting agent	Postharvest dip or spray. Rinse briefly with fresh water.
Citrus fruits:			
Citron	10	3.0% in water	Postharvest treatment. Dip 2 minutes;
Grapefruit	10	plus caustic	rinse with fresh water.
Kumquats	10	and hexamine	
Lemons	10		
Limes	10	1 gal. 1% wax	Postharvest application by wax foamer or
Oranges	10	emulsion per	suitable spray unit.
Tangelos	10	10,000 lbs. fruit	
Cucumbers	10	1.0% (in water)	Postharvest dip, flood or spray. Flush with water for at least 30 seconds after treatment.
		2.0%	Commercial wax applicator.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM o-PHENYLPHENATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Nectarines	5	1.0% (in water)	Postharvest dip, flood or spray. Flush briefly with fresh water after treatment.
Peaches	20	0.05% solution	Postharvest dip for 15-18 minutes at 33-35°F. Allow to drain; do not rinse.
		0.6% water solution	Postharvest dip for 20-30 seconds. Rinse fruit after treatment. If machine is stopped during operation, immediately rinse fruit manually.
Pears	25	0.45% solution	Postharvest treatment. Dip fruit for 45 seconds and rinse with fresh water.
Peppers	10	0.1% (in water)	Postharvest dip, flood or spray. Flush with water for at least 30 seconds after treatment.
		2.0%	Commercial wax applicator.
Pineapple	10	1.25% (in water)	Postharvest dip. Remove immediately. Do not rinse.
		1 gal. 1% wax emulsion per 10,000 lbs. fruit	Postharvest application by wax foamer or suitable spray unit.
Plums	20	0.1% (in water)	Postharvest dip, flood or spray. Flush briefly with water after treatment.
		2.0%	Solvent system commercial wax applicator.
Sweet potatoes		0.5% solution (tetrahydrate)	Postharvest flooding. Use 1 gal. of solution per 2000 lbs. of sweet potatoes.
		0.37% solution (anhydrous)	or
Tomatoes	10	1.0% (in water)	Postharvest dip, flood, or spray. Flush with fresh water for at least 30 seconds.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM POLYSULFIDE

**PRINCIPAL FORMULATIONS:** We have been able to identify only two commercial formulations. The first is an 84% wettable powder and the other a 40% emulsifiable concentrate. The wettable powder is restricted to dormant and delayed dormant usage. The emulsifiable concentrate is restricted to summer usage.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Beans	Safe Chemical	lbs. Actual/A. 2.0	No time limitations.
Pome Fruits:			
Apples	Safe	100.0	Dormant or delayed dormant application only.
Pears	Chemical		
Quinces		24.0	No time limitations.
Stone Fruits:			
Apricots	Safe	75.0	Dormant or delayed dormant application only.
Cherries	Chemical		
Nectarines			
Peaches		16.0	No time limitations.
Plums			
Prunes			

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

SODIUM POLYSULFIDE (84%)  
SODIUM THIOSULFATE (8%) MIXTURE

**PRINCIPAL FORMULATIONS:** Single proprietary formulation

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs./100 gals.	
Apples		3	Prebloom application only.
		1 1/4	Delayed dormant application.
Beans		1	No time limitations.
Berries (cane type)		1 lb./200 gals.	Dormant application.
Broccoli		1 lb./400 gals.	Preplanting soil treatment.
Cherries		6	Delayed dormant application only.
Peach		2	Prebloom application only.
		6	Dormant application.
Pear		3	Prebloom application only.
		6	Post-harvest application only.
		1 1/4	Delayed dormant application.
Plums		6	Delayed dormant application only.
Prunes		6	Delayed dormant application only.
Tomato		1 lb./400 gals.	Preplanting soil treatment.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM THIOARSENATE

**PRINCIPAL FORMULATIONS:** Incidental ingredient in arsenical animal treatments.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Goats Sheep		0.03% in water	Dip. Thorough application to animal. Formulated with other ingredients.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SODIUM TRICHLOROACETATE\*

**PRINCIPAL FORMULATIONS:** 30%, 40%, 90%, 94% wettable powder;  
12.5%, 37.5%, 47%, 50%, 85%, 90% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual TCA per acre	
Alfalfa		15.0	Apply in late fall and early spring while crop is dormant or immediately after first cutting in spring. Do not graze animals on treated areas.
Beans		2.7	Preemergence application.
Beets		9.0	Preemergence application. Do not use treated tops for food or feed.
Cabbage		8.5	Preemergence application.
		8.5	Post-emergence application as directed spray away from crop plants.
Cauliflower		8.5	Preemergence application.
		8.5	Post-emergence application as directed spray away from crop plants.
Clover		2.5	Preemergence application.
Clovers:			
Alsike		8.2	Apply in spring when crop is dormant or immediately after cutting. Do not graze animals on treated areas.
Ladino			
Red			
Sweet Trefoil		13.5	Apply in early spring or late fall while dormant or immediately after harvest. Do not graze animals on treated areas.
Cotton		18.0	Apply as directed spray on soil to base of full grown plants.
		45.0	Irrigated cotton, spray ground & then irrigate cotton.

\*TCA



**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**SODIUM TRICHLOROACETATE**

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual TCA per acre	
Flax		9.5	Post-emergence application when flax is 3-8 in. tall and grass is not over 2 in. tall.
Onions		2.7	Preemergence application.
Pastures		1 lb. 90% TCA per gal. water	Prickly pear cactus control in southwest: Apply in mid-July to wet each cactus thoroughly. Grazing pastures--woody plants, shrubs, trees: Apply undiluted only to those plants to be killed.
Ranges		1 lb. 90% TCA per gal. water	Prickly pear cactus control in southwest: Apply in mid-July to wet each cactus thoroughly. Grazing pastures--woody plants, shrubs, trees: Apply undiluted only to those plants to be killed.
Soybeans		2.7	Preemergence application.
Sugar Beets		9.0	Preemergence application. Do not use treated tops for food or feed.
Sugarcane		31.7	Preemergence and early post-emergence applications.
		45.0	Late post-emergence application as directed spray at base of sugarcane.
Plant Cane		3.3	Apply on drill after shaving and after stubble digger or rotary hoe has been used and before any seedlings emerge. Repeat application 4-5 weeks later (combined with 2,4-D).
Stubble Cane		9.1	Preemergence application on stubble cane in combination with 2,4-D.

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

SODIUM TRICHLOROACETATE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes (Direct Seeded)		lbs. actual TCA per acre 8.0	Preemergence application 2 days before seedlings emerge.
Cropland (Undesignated)		119.0	Apply as spot treatment. Do not allow animals to graze on treated areas for at least 24 hours after treatment.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

SORBIC ACID\*

**PRINCIPAL FORMULATIONS:** See "Use" below; 99.0% technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Raw Agricultural Commodities	Safe Chemical	5.7% impregnated polyethylene wrappers	No time limitations.

\*2-4 hexadienoic acid

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SPEM OIL

PRINCIPAL FORMULATIONS: With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		10.0%	Formulated with various other ingredients as screw-worm remedies. Apply locally to wounds, etc. as needed until wounds have healed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

STREPTOMYCIN

PRINCIPAL FORMULATIONS: 15% and 20% powders; 0.1%-8.5% dusts; 37% and 62.5% formulations of sulfates and nitrates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples		200 ppm	Do not apply after fruit is visible.
		60 ppm (spray)	120 days. For use in West Coast Area only.
		1500 ppm (dust)	
Beans		400 ppm	Apply only on seed crop or before pods appear on table beans. Do not feed treated vines to livestock.
Celery		200 ppm	Plant beds only.
Cucumbers		400 ppm	Do not apply after edible portions begin to form.
Hops		1000 ppm	Treat hop crown when shoots first appear. Repeat first soak spray after crown pruning (shoots 4-12 inches long). Do not apply after first vine training.
Pears		200 ppm	Do not apply after fruit is visible.
		60 ppm (spray)	90 days. For use in West Coast Area only.
		1500 ppm (dust)	
Peppers		400 ppm	Plant beds only.
		200 ppm	Do not apply after edible portions begin to form.
Potatoes		100 ppm	Soak cut seed pieces 30 minutes.
Sesame		250 ppm	Seed treatment only. Do not use treated seed for food or feed. Do not feed treated plants to livestock.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

STREPTOMYCIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tomatoes		200 ppm	Plant beds only.
		200 ppm	Do not apply after edible portions begin to form.
Walnuts		200 ppm	Do not apply after fruit is visible.
		50 ppm (spray)	120 days.
		1000 ppm (dust)	

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## STREPTOMYCIN - OXYTETRACYCLINE MIXTURE

**PRINCIPAL FORMULATIONS:** Soluble powder containing 15% streptomycin and 1.5% oxytetracycline

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		(ppm)	
Apples		1500	Bloom applications only.
Beans		200	Apply only on seed crop beans or before pods start to form on table beans. Do not feed treated vines to livestock.
Celery		2000	Plant bed treatment.
Cucumber		400	Do not apply after fruit begins to form.
Hops		1000	Early spring to vine training applications only.
Pears		1500	Bloom application only.
Peppers		3000	Plant bed treatment.
		2000	Field use. Do not apply after fruit begins to form.
Potato		100	Seed piece treatment.
Sesame		250	Seed treatment.
Tomato		3000	Plant bed treatment.
		2000	Field use. Do not apply after fruit begins to form.
Walnut		1500	Bloom and one additional postbloom stage application only.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SULFONATED CASTOR OIL

**PRINCIPAL FORMULATIONS:** Used with various toxicants as animal remedies.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		25.0%	Formulated with various other ingredients as screw-worm remedies. Apply locally to wounds, etc. as needed until wounds have healed.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SULFUR\*

**PRINCIPAL FORMULATIONS:** Wettable sulfurs containing from 30% to 98% sulfur; dusts containing from 20% to 98% sulfur

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bush & Vine Fruits:			
Blackberries	Safe Chemical	50.0	No time limitations.
Blueberries			
Boysenberries			
Cranberries			
Currents			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Strawberries			
Youngberries			
Citrus Fruits:			
Grapefruits	Safe Chemical	125.0	No time limitations.
Kumquats			
Lemons			
Limes			
Oranges			
Tangeloes			
Tangerines			
Cotton	Safe Chemical	30.0	No time limitations.
Deciduous Fruits & Nuts:			
Almonds	Safe Chemical	170.0	No time limitations.
Apples			
Apricots			
Cashews			
Cherries			
Chestnuts			

\* See also: "Sulfur Dioxide"

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SULFUR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Deciduous Fruits & Nuts: (Cont.)		lbs. actual/A.	
Dates	Safe Chemical	170.0	No time limitations.
Figs			
Filberts			
Hazelnuts			
Hickory Nuts			
Nectarines			
Olives			
Peaches			
Pears			
Pecans			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Walnuts			
Field & Forage Crops:			
Alfalfa	Safe Chemical	50.0	No time limitations.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts			
Popcorn			
Rice			
Rye			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SULFUR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field & Forage Crops: (Cont.)		lbs. actual/A.	
Safflower	Safe	50.0	No time limitations.
Sorghum	Chemical		
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Flax	Safe	30.0	No time limitations.
	Chemical		
Tropical Fruits:			
Avocados	Safe	50.0	No time limitations.
Bananas	Chemical		
Guavas			
Mangoes			
Papayas			
Passion Fruit			
Vegetables:			
Asparagus	Safe	50.0	No time limitations.
Beans	Chemical		
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SULFUR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Horseradish	Safe Chemical	50.0	No time limitations.
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash (Summer)			
Squash (Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			
Animals:			
Beef Cattle		100% dust	Formulated with other ingredients. Apply liberally to animal and rub into hair or feathers.
Dairy Cattle			
Goats			
Poultry			
Sheep			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SULFUR

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals: (Cont.)</p> <p>Swine</p> <p>Sheep</p> <p>Agricultural Premises:</p> <p>Barns Miscellaneous Farm Bldgs. Poultry Houses</p> <p>Mushroom Houses</p>		<p>lbs. actual/A.</p> <p>0.5% (in oil)</p> <p>1.0% (in water)</p> <p>2.0 lbs./1000 cu. ft.</p> <p>87.5% (dust)</p> <p>2.0 lbs./1000 cu. ft.</p>	<p>Formulated with other ingredients. Apply as a spot treatment for control of mange and scabies. Can be applied by rubbing devices.</p> <p>Dip or spray. Thoroughly drench animals.</p> <p>Burn sulfur in tightly closed room or building.</p> <p>Apply thoroughly to all interior surfaces of poultry houses.</p> <p>Burn sulfur inside house when no mushrooms are present.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SULFUR DIOXIDE\*

**PRINCIPAL FORMULATIONS:** Always used in combination with other grain fumigants

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Stored Grain:			
Barley	Exempt	3.0 lbs./	Concentration should not exceed 5%
Buckwheat	Exempt	1000 bu.	in liquid grain fumigants.
Corn	Exempt		
Oats	Exempt		
Rice	Exempt		
Rye	Exempt		
Sorghum (Grain)	Exempt		
Wheat	Exempt		
Agricultural Premises:			
Barns		3.0 lbs.	Space fumigation. Do not apply when
Empty Grain		of sulfur	any food or feed products are present.
Bins		completely	Protect or remove all metal, electrical
Farm Buildings		burned/1000	equipment and appliances, and fabric
Etc.		cu. ft.	materials. Take necessary cautions
			for fire prevention.

\* Also see "Sulfur"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SULFURIC ACID

PRINCIPAL FORMULATIONS: 93.2% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Garlic		lbs. actual/A.  114	Postemergence application when plants are in the early true leaf stage and up to the time leaves are 10-12 inches tall and weed growth is about 2 inches tall. Do not apply on cloudy overcast days.
Onions		114	Postemergence application when plants are in the early true leaf stage and up to the time leave are 10-12 inches tall and weed growth is about 2 inches tall. Do not apply on cloudy overcast days.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SUIFER OILS\*

**PRINCIPAL FORMULATIONS:** These oils are marketed primarily as emulsifiable concentrates containing a high percentage of oil. The oil in most cases will have an unsulfonated residue of 90% or more.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. actual/A.	
Blackberries Blueberries Boysenberries Cranberries Currants Dewberries Gooseberries Grapes Huckleberries Loganberries Raspberries Strawberries Youngberries		32	No time limitations.
Citrus Fruits:		420	No time limitations.
Grapefruits Kumquats Lemons Limes Oranges Tangeloes Tangerines			
Pome Fruits:	Exempt	192	No time limitations.
Apples Pears Quinces			
Stone Fruits:	Exempt	128	No time limitations.
Apricots Cherries Nectarines Peaches Plums			

\* Also see "Dormant Oils," "Mineral Oil," and "Petroleum Solvents."



USDA Summary of Registered Agricultural Pesticide Chemical Uses

SUMMER OILS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Grapes		48	No time limitations.
Olives		165	No time limitations.
Vegetables:			
Asparagus		15	No time limitations.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

SUMMER OILS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Vegetables: (Cont.)</p> <p>Spinach Squash (Summer) Squash (Winter) Sweet Potatoes Swiss Chard Tomatoes Turnips Watermelons</p>		<p>lbs. actual/A.</p> <p>15</p>	<p>No time limitations.</p>

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## SURFACE-ACTIVE AGENTS\*

**PRINCIPAL FORMULATIONS:** Used in formulation of pesticides

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:  Blackberries Blueberries Boysenberries Cranberries Currants Dewberries Gooseberries Grapes Huckleberries Loganberries Raspberries Strawberries Youngberries		10.0%	No special limitations.
Field, Fiber, & Forage Crops:  Alfalfa Barley Birdsfoot Trefoil Buckwheat Clover Corn Cotton Flax Grasses Hops Lespedeza Millet Milo Oats Pasture Grass Peanuts Popcorn Rice Rye Safflower Sorghum		10.0%	No special limitations.

\* Includes: Soap, Emulsifiers, Wetters, Stickers, and Spreaders.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SURFACE-ACTIVE AGENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber, & Forage Crops:			
Soybeans		10.0%	No special limitations.
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Tree Fruits:			
Apples		10.0%	No special limitations.
Apricots			
Avocados			
Cherries			
Dates			
Figs			
Grapefruit			
Guavas			
Kumquats			
Lemons			
Limes			
Mangoes			
Nectarines			
Olives			
Oranges			
Papayas			
Passion Fruit			
Peaches			
Pears			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			
Vegetables:			
Asparagus		10.0%	No special limitations.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SURFACE-ACTIVE AGENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)			
Cabbage		10.0%	No special limitations.
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimentoes			
Potatoes			
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash			
(Summer)			
Squash			
(Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

SURFACE-ACTIVE AGENTS

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Stored Grains:</p> <p>Barley Corn Oats Rice Rye Sorghum (Grain) Wheat</p>		2.0%	Post-harvest application.
<p>Stored Peanuts</p>		2.0%	Post-harvest application directly to peanuts.
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Poultry Sheep Swine</p>		<p>10% (dust) 0.5% (spray)</p> <p>20.0%</p>	<p>No special limitations.</p> <p>Apply as a spot treatment for screw-worm control.</p>
<p>Agricultural Premises:</p> <p>Barns Dairy Barns Feed Rooms Grain Bins Milk Rooms Poultry Houses Etc.</p>		2.5%	Apply liberally to all surfaces. Do not contaminate milk or milk handling equipment.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TARTAR EMETIC\*

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
	(as Sb <sub>2</sub> O <sub>3</sub> )	lbs. actual/A.	
Citrus Fruits:			
Grapefruit	3.5	2.5	30 days. Bait spray for thrips.
Kumquats	3.5		
Lemons	3.5		
Limes	3.5		
Oranges	3.5		
Tangeloes	3.5		
Tangerines	3.5		

\*Antimony potassium tartrate

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

TDE (DDD)\*

**PRINCIPAL FORMULATIONS:** 50% wettable powder; 25% emulsifiable concentrate; 5% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		5.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
		1.0	Granular. Apply to irrigated fields as a mosquito larvacide.
Apples	7	12.0	30 days.
Apricots	7	8.0	30 days.
Barley		2 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Beans			
Dry Lima	7	5.0	No time limitations.
Snap	7	5.0	Do not apply after pods start to form.
Beans		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Blackberries	7	4.0	14 days.
Blackeyed Peas		2.0 oz/bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Blueberries	7	4.0	14 days.
Boysenberries	7	4.0	14 days.
Broccoli	7	4.0	Do not apply after edible parts start to form.
Brussels Sprouts	7	4.0	Do not apply after edible parts start to form.
Cabbage	7	5.0	Do not apply after heads start to form.

\*1,1-dichloro-2,2-bis (p-chlorophenyl) ethane

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

TDE (DDD)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cauliflower	7	5.0	Do not apply after edible parts start to form.
Cherries	7	8.0	30 days.
Citrus:			
Grapefruit	7	30.0	14 days.
Kumquats	7		
Lemons	7		
Limes	7		
Oranges	7		
Tangeloes	7		
Tangerines	7		
Clover		5.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
		1.0	Granular. Apply to irrigated fields as a mosquito larvacide.
Corn	7	10.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Corn		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cotton		1.5	Do not graze or feed gin waste to dairy animals or animals being finished for slaughter, when fields have been treated late in the season.
Cotton		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cowpeas		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Cucumbers	7	3.0	Do not apply immediately before harvest.
Currants		4.0	Do not apply after fruit starts to form.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TDE (DDD)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Dewberries	7	4.0	14 days.
Eggplants	7	4.0	Do not apply immediately before harvest.
Filberts		5.0	Do not apply after husks open.
Gooseberries		4.0	Do not apply after fruit starts to form.
Grapes	7	5.0	40 days. Do not use additional spreaders or stickers after huskshot stage.
Kohlrabi	7	3.0	Do not apply after edible parts start to form.
Lettuce	7	5.0	Do not apply after heads start to form on head lettuce. Do not apply after seedling stage on leaf lettuce.
Loganberries	7	4.0	14 days.
Melons	7	5.0	No time limitations.
Nectarines	7	8.0	30 days.
Oats		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Onions		3.0	Do not apply to green or spring onions.
Peaches	7	8.0	30 days.
Peanuts		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Pears	7	12.0	30 days.
Peas		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Peppers	7	4.0	Do not apply immediately prior to harvest.
Plums	7	8.0	30 days.
Potatoes		5.0	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TDE (DDD)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Prunes	7	8.0	30 days.
Pumpkins	7	3.0	Do not apply immediately prior to harvest.
Quinces	7	12.0	30 days.
Raspberries	7	3.0	14 days.
Rice		1.0	Granular formulation. Apply to fields as a mosquito larvacide.
Rice (seed)		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Rutabagas	7	3.0	No time limitations.
Rye		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Sorghum		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Soybeans		2.0	Do not apply within 56 days of harvest. Do not apply more than once per season. Do not feed forage or plant parts to poultry, dairy animals, or animals being finished for slaughter. Do not graze treated areas or cut treated crop for silage.
		1.0	Do not apply within 56 days of harvest. Do not apply more than twice per season. Do not feed forage or plant parts to poultry, dairy animals, or animals being finished for slaughter. Do not graze treated areas or cut treated crop for silage.
Soybeans (seed)		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Spinach	7	2.0	Do not apply after seedling stage.
Squash	7	3.0	Do not apply immediately prior to harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TDE (DDD)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Strawberries	7	3.0	5 days.
Tomatoes	7	6.0	Do not apply immediately prior to harvest.
Turnips	7	3.0	Do not apply after seedling stage if tops are to be used for food or feed.
Wheat		2.0 oz./bu.	Seed treatment only. Do not use treated seed for food, feed, or oil.
Animals:			
Beef cattle		1.0% in oil	Apply as a mist spray at the rate of 2.0 oz. per animal the size of an adult cow. Usually formulated with other ingredients. Do not apply to dairy animals.
Poultry		5.0% dust or powder	Thorough application to birds.
Goats Sheep		1.0% in oil	Apply as a mist spray at the rate of 1.0-1.5 oz. per animal. Do not apply to dairy animals.
Swine		1.0% in oil	Apply only as a mist spray to the animal.
Agricultural Premises:			
Barns Milk rooms Animal pens (excluding dairy barns & poultry houses)		5.0% in oil or water	Apply thoroughly as a residual type spray. Do not contaminate feed or water. Do not use in dairy barns. Exclude animals during treatment. Do not contaminate milk or milk handling equipment.
		1.0% in oil or water	Apply as a space or mist spray. Do not contaminate feed or water. Do not use in dairy barns. Exclude all animals during treatment. Do not contaminate milk or milk handling equipment.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

TDE (DDD)

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
General:		lbs. actual/A.	
Mosquito Control Swampy Pastures Uncultivated Land Other		1.5	Granular formulation. Apply by aircraft as a mosquito larvacide.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

TEPP\*

**PRINCIPAL FORMULATIONS:** 20% to 40% emulsifiable concentrates; 2% to 5% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Bush & Vine Fruits:			
Blackberries	0	2.0	3 days.
Blueberries	0	(as spray)	
Boysenberries	0	2.5	
Cranberries	0	(as dust)	
Currants	0		
Dewberries	0		
Gooseberries	0		
Grapes	0		
Huckleberries	0		
Loganberries	0		
Raspberries	0		
Strawberries	0		
Youngberries	0		
Citrus:			
Grapefruit	0	5.0	3 days
Kumquats	0		
Lemons	0		
Limes	0		
Oranges	0		
Tangeloes	0		
Tangerines	0		
Deciduous Fruits:			
Apples	0	5.0	3 days.
Apricots	0		
Cherries	0		
Dates	0		
Figs	0		
Nectarines	0		
Olives	0		
Peaches	0		
Pears	0		
Persimmons	0		
Plums	0		

\*Tetraethyl pyrophosphate

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

TEPP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Deciduous Fruits: (Cont.)			
Pomegranate	0	5.0	3 days.
Prunes	0		
Quinces	0		
Field & Forage Crops:			
Alfalfa	0	2.0	3 days.
Barley	0		
Birdsfoot Trefoil	0		
Buckwheat	0		
Clover	0		
Corn	0		
Cotton	0		
Flax	0		
Grasses	0		
Hops	0		
Lespedeza	0		
Millet	0		
Milo	0		
Oats	0		
Pasture Grass	0		
Peanuts	0		
Popcorn	0		
Rice	0		
Rye	0		
Safflower	0		
Sorghum	0		
Soybeans	0		
Sugar Beets	0		
Sugarcane	0		
Vetch	0		
Wheat	0		

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TEPP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Greenhouse Vegetables:			
Cucumbers	0	0.05 lbs./	3 days. Greenhouse aerosol formulations.
Endive	0	50,000 cu.ft.	
Lettuce	0	of space	
Radishes	0		
Tomatoes	0		
Watercress	0		
Nuts:			
Almonds	0	3.5	2 days.
Cashews	0		
Chestnuts	0		
Filberts	0		
Hazelnuts	0		
Hickory Nuts	0		
Pecans	0		
Walnuts	0		
Vegetables:			
Asparagus	0	2.0	3 days. Do not apply to sensitive crops.
Beans	0		
Beets	0		
Blackeyed Peas	0		
Broccoli	0		
Brussels	0		
Sprouts			
Cabbage	0		
Cantaloupes	0		
Carrots	0		
Cauliflower	0		
Celery	0		
Collards	0		
Corn	0		
Cowpeas	0		
Cucumbers	0		
Eggplants	0		
Endive	0		
Garlic	0		
Horseradish	0		
Kale	0		
Kohlrabi	0		



USDA Summary of Registered Agricultural Pesticide Chemical Uses

TEPP

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables (Cont.)		lbs. actual/A.	
Leeks	0	2.0	3 days. Do not apply to sensitive crops.
Lettuce	0		
Melons	0		
Mustard Greens	0		
Okra	0		
Onions	0		
Parsnips	0		
Peas	0		
Peppers	0		
Pimentos	0		
Potatoes	0		
Pumpkins	0		
Radishes	0		
Rutabagas	0		
Salsify	0		
Shallots	0		
Spinach	0		
Squash (summer)	0		
Squash (winter)	0		
Sweet Potatoes	0		
Swiss Chard	0		
Tomatoes	0		
Turnips	0		
Watermelons	0		
Agricultural Premises:			
Barns		0.25%	Wet bait formulation, usually in combination with other ingredients. Apply to walks, floors, in gutters, etc. Do not contaminate feed or drinking water.
Dairy Barns			
Feed Rooms			
Milk Rooms			
Etc.			

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TERPENE POLYCHLORINATES (66% CL)\*

**PRINCIPAL FORMULATIONS:** 25% emulsifiable concentrate; 25% wettable powder; 20% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton	5.0 (cotton- seed)	lbs. actual/A.  4.8	Do not apply after bolls open. Do not graze dairy animals or animals being finished for slaughter in treated fields. Do not feed gin waste to livestock.
Agricultural Premises:		4.0	Do not feed gin waste to livestock.
Barns (excluding dairy barns) Outbuildings Poultry Houses Etc.		2.0% (in oil)	Formulated with other ingredients. Apply as a space spray or by fog generators. Keep building closed for 15 minutes. Do not apply to dairy barns. Do not allow poultry to feed on dead insects.

\*Proprietary name: "Strobane"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

4-TERT-BUTYL-2-CHLOROPHENYL METHYLPHOSPHOROAMIDATE\*

PRINCIPAL FORMULATIONS: 25% emulsifiable concentrate; 25% wettable powder;  
9.4% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cattle		0.5% (in water)	Do not repeat application within 28 days. Apply approximately one gallon per animal weighing 300 lbs. or more, proportionately less for smaller animals. Do not apply to lactating dairy animals or to dry dairy animals within 28 days of freshening. Do not apply to meat animals within 28 days of slaughter.
		8.3%	Do not repeat application within 28 days. Apply by pouring evenly on the animals back at 1.0 fluid ounces per 100 lbs. of body weight. Do not apply to lactating dairy animals or to dry dairy animals within 28 days of freshening. Do not apply to meat animals within 28 days of slaughter.
		9.4% solution	Apply by pouring evenly on animals back at the rate of 1 fluid ounce per 100 lbs. of body weight. Do not repeat application within 28 days. Do not apply to lactating dairy animals or to dry dairy animals within 28 days of freshening. Do not apply to meat animals within 28 days of slaughter.

\*Proprietary name: "Ruelene"

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

p-TERTIARY OCTYLPHENOXY ETHOXY ETHYL DIMETHYL MERCURIC BENZYL  
AMMONIUM CHLORIDE

**PRINCIPAL FORMULATIONS:** 5.15% mixture with 0.01% trioxymethylene and 0.01% mercuric chlorides

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		0.5 oz./bu.	Seed treatment. Do not use treated seed for food or feed.
Oats		0.5 oz./bu.	Seed treatment. Do not use treated seed for food or feed.
Wheat		0.5 oz./bu.	Seed treatment. Do not use treated seed for food or feed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TETRACHLOROETHYLENE

**PRINCIPAL FORMULATIONS:** Used in mixtures with other toxic ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Grains:			
Barley		4 gal./	Used in mixtures with grain protectants
Corn		1000 bu.	and certain fumigants.
Oats			
Rice		1 gal./	Used in mixtures with grain protectants.
Rye		1000 sq. ft.	Thoroughly cover exposed surface of
Sorghum (Grain)			stored grain and adjacent areas with
Wheat			spray.

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

N-(1,1,2,2-TETRACHLOROETHYLTHIO)-4-CYCLOHEXENE-1,2-DICARBOXIMIDE

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		lbs. actual/A. 2.5	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TETRADIFON\*

**PRINCIPAL FORMULATIONS:** 25% wettable powder, 1 pound per gallon emulsifiable concentrate, 3% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	5.0	2.5	Do not apply after husk split. Do not use hulls for food or feed.
Apples		2.5	Not more than 3 applications after petal fall. Do not feed pomace from treated apples to livestock.
		1.25	Not more than 4 applications after petal fall. Do not feed pomace from treated apples to livestock.
	5.0	4.5	Prebloom and post-harvest applications only.
Apricots		1.0	Not more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and post-harvest only.
Avocados	5.0	3.0	Do not apply after fruit is set.
Beans			
Dried		1.0	Do not apply after pods start to form.
Blackberries		1.2	Post-harvest application or when no fruit is present.
Blueberries		1.2	Post-harvest application or when no fruit is present.
Boysenberries		1.2	Post-harvest application or when no fruit is present.

\*2,4,5,4'-tetrachlorodiphenyl sulfone  
Proprietary name: "Tedion"

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TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cantaloupes	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Cherries	5.0	1.0	Not more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and post-harvest only.
Citrus Citron	2.0	5.0	Do not apply more than once per season while fruit is present.
Cotton		1.2	Do not apply after bolls begin to open. Do not graze dairy or meat animals in treated fields.
Crabapples	5.0	2.5	Not more than 3 applications after petal fall. Do not feed pomace from treated apples to livestock.
		1.25	Not more than 4 applications after petal fall. Do not feed pomace from treated apples to livestock.
		4.5	Prebloom and post-harvest applications only.
Cucumbers			
Greenhouse	1.0	0.25 lbs./ 100 gals. water	Full coverage spray. Do not apply more than 3 times during fruiting season.
Field	1.0	0.5	Do not apply more than 3 times during fruiting season.
Eggplants		0.5	Do not apply after bloom buds appear.
Figs	6 (on fresh figs) 10 (on dried figs)	2.5	14 days. Do not apply more than twice during fruiting season.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Filberts		1.5	No time limitations.
		2.5	30 days.
Gooseberries		1.2	Post-harvest application or when no fruit is present.
Grapefruit	2.0	5.0	Do not apply more than once per season while fruit is present.
Grapes	5.0	1.0	Not more than 3 applications during the fruiting period.
		1.5 (dust)	Not more than one application after bloom.
Honeydew Melons	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Hops	30 (on fresh hops) 120 (on dried hops)	1.0 (spray) 1.2 (dust)	14 days. Do not apply more than twice during fruiting season. Do not feed straw to livestock.
Lemons	2.0	5.0	Do not apply more than once per season while fruit is present.
Limes	2.0	5.0	Do not apply more than once per season while fruit is present.
Loganberries		1.2	Post-harvest application or when no fruit is present.
Mangoes		3.0	Do not apply after fruit is set.
Melons	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Muskmelons	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Nectarines	5.0	1.0	No more than 2 applications after shuck-split.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Nectarines (cont.)	5.0	2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and post-harvest only.
Oranges	2.0	5.0	Do not apply more than once per season while fruit is present.
Peaches	5.0	1.0	Not more than 2 applications after shuck-split.
		2.0	Not more than 1 application after shuck-split.
		3.0	Apply before shuck-split and after harvest only.
Pears	5.0	1.25	Not more than 4 applications after petal fall.
		2.5	Not more than 3 applications after petal fall.
		4.5	Apply prebloom and post-harvest applications only.
Peppers		0.75	Do not apply after edible parts begin to form.
Peppermint	100	0.66	10 days. Do not apply more than twice per season. Do not feed mint hay or spent mint hay to livestock.
Plums	5.0	2.5	Not more than 3 applications during the fruiting season.
Prunes	5.0	2.5	Not more than 3 applications during the fruiting season.
Pumpkins	1.0	0.5 (spray) 1.2 (dust)	No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TETRADIFON

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Quinces	5.0	1.25	No more than 4 applications after petal fall.
		2.5	Not more than 3 applications after petal fall.
		4.5	Apply prebloom and post-harvest applications only.
Raspberries		1.2	Post-harvest application or when no fruit is present.
Spearmint	100	0.66	10 days. Do not apply more than twice per season. Do not feed mint hay or spent mint hay to livestock.
Squash (winter)	1.0	0.5 (spray) 1.2 (dust)	No time limitations.
Strawberries	5.0	1.0 (spray) 1.2 (dust)	3 days. Do not apply more often than 35 day intervals during fruiting season.
Tangeloes	2.0	5.0	Do not apply more than once per season while fruit is present.
Tangerines	2.0	5.0	Do not apply more than once per season while fruit is present.
Tomatoes	1.0	0.5 (spray) 0.75 (dust)	Do not apply more than 3 times during fruiting season.
Walnuts		2.5	No applications after the shucks split.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TETRAETHYL DITHIOPYROPHOSPHATE\*

PRINCIPAL FORMULATIONS: 5% aerosols

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Greenhouse Vegetables:			
Endive Lettuce Radishes		0.1 lb./ 50,000 cu. ft.	21 days. Greenhouse aerosol formulation. Apply when temperature is between 75 and 80°F and keep building closed for 2 hours.
Cucumbers Tomatoes		0.1 lb./ 50,000 cu. ft.	15 days. Greenhouse aerosol formulation. Apply when temperature is between 75 and 80°F and keep building closed for 2 hours.

\*Proprietary name: "Sulfotepp"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TETRA-IODOETHYLENE

PRINCIPAL FORMULATIONS: 77.75% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cantaloupes	15	Dip or spray with a 0.3-0.8% suspension or a 0.2-0.3% wax emulsion	Post-harvest application to prevent decay.
Melons		Dip or spray with a 0.3-0.8% suspension or a 0.2-0.3% wax emulsion	Post-harvest application to prevent decay.



**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**B-THIOCYANOETHYL ESTERS OF C<sub>10</sub>-C<sub>18</sub> ALIPHATIC FATTY ACIDS\***

**PRINCIPAL FORMULATIONS:** 1% - 3% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A. as thiocyanates	
Asparagus		0.2	Dust. Formulated with other ingredients. No time limitations.
Beans		0.5	Dust. Formulated with other ingredients. No time limitations.
Beets		0.6	Dust. Formulated with other ingredients. No time limitations.
Cabbage		0.2	Dust. Formulated with other ingredients. No time limitations.
Cucumbers		0.2	Dust. Formulated with other ingredients. No time limitations.
Eggplants		0.2	Dust. Formulated with other ingredients. No time limitations.
Melons		0.2	Dust. Formulated with other ingredients. No time limitations.
Potatoes		0.2	Dust. Formulated with other ingredients. No time limitations.
Pumpkins		0.2	Dust. Formulated with other ingredients. No time limitations.
Squash		0.2	Dust. Formulated with other ingredients. No time limitations.
Tomatoes		0.2	Dust. Formulated with other ingredients. No time limitations.
Walnuts		8.0	Apply before buds open. Later application may cause foliage burn.

\*Proprietary name: "Lethane 60"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

B-THIOCYANOETHYL ESTERS OF C<sub>10</sub>-C<sub>18</sub> ALIPHATIC FATTY ACIDS  
PLUS B-BUTOXY B'-THIOCYANO-DIETHYL ETHER\*

**PRINCIPAL FORMULATIONS:** Oil sprays containing 3%-8% thiocyanates

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<p>Animals:</p> <p>Beef Cattle Dairy Cattle Goats Poultry Sheep Swine</p> <p>Agricultural Premises:</p> <p>Barns Dairy Barns Grain Bins Grain Elevators Hog Pens Milk Rooms Poultry Houses Sheep Folds Etc.</p>		<p>Thiocyanates</p> <p>3.0% in oil</p> <p>3.0% in oil</p> <p>8.0% in oil</p>	<p>Apply as a mist spray to outer hair at the rate of 2.0 ounces per animal the size of an adult cow. Do not wet hide of animal.</p> <p>Apply at the rate of 2.5 ounces per animal the size of an adult cow and rub into hair. Do not repeat application within 3 weeks.</p> <p>Apply as a space spray. Fill closed room with mist and keep tightly closed for 10 minutes. Do not contaminate feed, milk, milk handling equipment, or drinking water.</p>

\*Proprietary name: "Lethane 384 Special" containing 40.6% B-thiocyano ethyl esters of mixed fatty acids averaging 10 to 18 carbon atoms, 13.2% B-butoxy B' thiocyano diethyl ether, and 46.2% petroleum distillate



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

THIRAM\*

PRINCIPAL FORMULATIONS: 65% wettable powder;  
40%, 50% and 75% seed protectants;  
2% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Apples	7	6.5 lbs. act./A.	No time limitations.
Bananas	7 1 (in pulp)	0.16% (in water)  2.0% paste	Post-harvest application to crowns and fruit following removal of stems, at the rate of 5 gallons per 100 trays (40 lbs. each).  Brush application to cut stems and crowns.
Beans			
Lima		1.7 oz./100 lbs.	Seed treatment (dry).
String		1.5 oz./100 lbs.	Seed treatment (slurry). Do not use treated seed for food or feed.
Beans			
Snap		1.1 oz./100 lbs. 1.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Celery	7	0.25 lbs./ 1200 sq. ft.  2.0 lbs. act./A.	Transplant bed treatment only.  7 days. Remove residues by stripping, trimming, and washing.
Corn			
Field		1.5 oz./100 lbs. 1.3 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Sweet		1.5 oz./100 lbs. 4.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Cotton		1.5 oz./100 lbs.	Soil and seed treatment in furrow at time of planting.

\*Tetramethyl thiuran disulfide

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

THIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cottonseed:			
Acid delinted		3.0 oz./100 lbs. 2.3 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Cowpeas		1.1 oz./100 lbs. 1.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Millet		1.2 oz./100 lbs. 2.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Okra		3.0 oz./100 lbs.	Seed treatment. Do not use treated seed for food or feed.
Onions		1.8 lbs. act./A.	Furrow treatment
Bulbs		8.0 oz./10 lbs.	Bulb treatment (pelletized).
Sets		8.0 oz./10 lbs.	Seed treatment (dry).
Peaches	7	6.5 lbs. act./A.	7 days.
Peanuts			
Shelled		2.25 oz./100 lbs.	Seed treatment (dry or slurry).
Unshelled		1.5 oz./100 lbs.	Seed treatment (dry). Do not use treated seed for food, feed, or oil.
Peas		1.7 oz./100 lbs. 1.5 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry).
Rice		3.0 oz./100 lbs. 1.7 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Sesame		2.25 oz./100 lbs.	Seed treatment. Do not use treated seed for food, feed, or oil.
Sorghum		1.2 oz./100 lbs. 2.0 oz./100 lbs.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## THIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sorghum (cont.)		4.0 lbs. act./A.	Preharvest spray directed to seed heads. Seed crop use. Do not use treated grain for feed, food, or oil. Do not graze treated fields.
Soybeans		1.1 oz./100 lbs. 1.0 oz./100 lbs.  1.0 oz./bu.	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.  Planter box seed treatment.
Strawberries	7	3.3 lbs. act./A.	Remove residues by washing if applica- tions are made within 3 days of harvest.
Sweet potatoes		0.75 lb./7 1/2 gals.	Preplanting root dip for 1/2 minute.
Tomatoes	7	1.0 lbs. act./A.	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TOXAPHENE\*

**PRINCIPAL FORMULATIONS:** Emulsifiable concentrates containing 4, 6, or 8 lbs. per gallon; 50% wettable powder; 10% to 20% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Alfalfa		2.5	Apply in early spring or after cutting before new growth is 4 inches tall.
		3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Apples	7	16.0	Do not apply after second cover spray or within 40 days of harvest.
Apricots	7	12.0	Do not apply after second cover spray or within 40 days of harvest.
Asparagus		5.0	Post-harvest treatment only.
Avocados		10.0	Do not apply after fruit starts to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Bananas	3 (not more than 0.3 in pulp)	1.5	1 day.
Barley	5	3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on the use of the grain.
Barley Seed		2.0 oz./bu.	Do not use as food or feed.

\*Chlorinated camphene containing 67% to 69% chlorine

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans (including dry, green, and lima)	7	6.0	No limitations on use of shelled beans as human food. Do not apply dusts to green or snap beans within 7 days of harvest. Do not apply sprays to green or snap beans after pods begin to form. Do not feed treated vines to dairy animals or animals being finished for slaughter.
Beans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Beets		6.0	30 days. Do not use tops for food or feed.
Blackberries	7	4.0	Do not apply after fruit begins to form.
Blueberries		4.0	Do not apply after fruit begins to form.
Boysenberries	7	4.0	Do not apply after fruit begins to form.
Broccoli	7	8.0	Do not apply after edible parts begin to form or within 30 days of harvest.
Brussels Sprouts	7	8.0	Do not apply after edible parts begin to form or within 30 days of harvest.
Bush & Vine Fruits:			
Blackberries		25.0	Preplanting soil treatment or when no fruit is present. Single application.
Blueberries			
Boysenberries			
Cranberries		5.0	Wet or dry bait formulation. Do not apply broadcast when edible parts are present.
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Strawberries			
Youngberries			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cabbage	7	2.5	Do not apply within 7 days of harvest if cabbage will be marketed after outer leaves have been removed. Do not apply after heads start to form if cabbage will be marketed with outer leaves intact.
		4.0	Do not apply after heads start to form or within 30 days of harvest.
Carrots	7	5.0	No time limitations.
Cauliflower	7	8.0	Do not apply after edible parts start to form or within 30 days of harvest.
Celery	7	5.0	Do not apply after plants start to bunch or after plants are half mature.
Cherries		12.0	Do not apply within 40 days of harvest or after second cover spray.
Citrus:			
Grapefruit	7	10.0	30 days. Dust, spray, or granular formulations. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Kumquats	7		
Lemons	7		
Limes	7		
Oranges	7		
Tangeloes	7	5.0	Wet or dry bait formulation. Do not apply broadcast when edible parts are present.
Tangerines	7		
		50.0	To be applied as a soil treatment when no fruit is present. Do not feed treated forage to dairy animals or animals being finished for slaughter. Single application.
Clover		2.5	Apply in early spring or after cutting before new growth is 4 inches tall.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Collards	7	2.0	14 days (dust). 28 days (spray).
		4.0	21 days (dust). 35 days (spray).
		8.0	Do not apply after edible parts start to form.
Corn	7	2.0	Granular formulations only. Do not feed ensilage from treated corn to dairy animals or animals being finished for slaughter. Do not graze dairy animals on treated stover. Do not graze meat animals on treated stover within 4 weeks of slaughter. No limitation on use of grain.
		6.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. No limitation on use of grain.
Cotton	5 (cotton-seed)	4.0	Do not graze dairy animals or animals being finished for slaughter in fields treated late in the season.
		8.0	Do not apply after bolls open.
Cowpeas	7	3.0	No limitation on use of shelled peas as human food. Do not apply to cowpeas to be used as green snaps after pods begin to form. Do not feed treated vines to dairy animals or animals being finished for slaughter.
Cowpeas			
Seed		2.0 oz./bu.	Do not use as food or feed.
Cranberries	7	5.0	Do not apply after fruit starts to form.
Cucurbits		3.0	Do not apply after edible parts start to form. May be injurious to plant growth.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Currants		4.0	Do not apply after fruit starts to form.
Deciduous Fruits & Nuts:			
Almonds		5.0	Wet or dry bait formulation. Do not apply broadcast when edible parts are present.
Apples			
Apricots			
Cashews			
Cherries		25.0	Soil application. Apply to trunk, scaf- fold branches, and soil when no fruit is present. Do not feed treated forage to dairy animals or animals being finished for slaughter. Single application.
Chestnuts			
Dates			
Figs			
Filberts			
Hazelnuts			
Hickory Nuts			
Nectarines			
Olives			
Peaches			
Pears			
Pecans			
Persimmons			
Plums			
Pomegranate			
Prunes			
Quinces			
Walnuts			
Dewberries	7	4.0	Do not apply after fruit begins to form.
Eggplants	7	3.0	5 days.
		6.0	Do not apply after edible parts start to form.
Endive		4.0	Do not apply after seedling stage.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Field, Fiber, & Forage Crops:			
Alfalfa		2.5	Wet or dry bait formulation. Do not apply broadcast when edible parts are present.
Barley			
Birdsfoot			
Trefoil			
Buckwheat		25.0	Apply as a preplanting soil treatment or before edible parts start to form. Single application.
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts			
Popcorn			
Rice			
Rye			
Safflower			
Sorghum			
Soybeans			
Sugar Beets			
Sugarcane			
Vetch			
Wheat			
Figs		10.0	Dust or spray. Do not apply after fruit starts to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Flax		4.0	Do not apply after bloom stage. Do not feed treated forage to dairy animals or animals being finished for slaughter. No limitation on edible oils.
Forage Crops (including forage legumes)		3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Garlic		15.0	Apply as a preplanting soil treatment or before edible parts start to form.
Gooseberries		4.0	Do not apply after edible parts start to form.
Grain Crops:			
Barley		2.5	Wet or dry bait formulations. No time limitation.
Corn			
Oats			
Rice		25.0	Apply as a preplanting soil treatment or before edible parts start to form.
Rye			Single application.
Sorghum (Grain)			
Wheat			
Grapes		7.0	Do not apply after fruit begins to form.
Grass			
Pasture	7	1.5	Only one application per season. Do not
Range	(in fat of beef animals)	2.0 (in water)	pasture dairy animals.
			Do not apply more than once per season.
			Do not graze dairy animals in treated
			fields. Do not graze meat animals in
			treated field within 6 weeks of slaughter.
			Do not apply to forage to be sold com-
			mercially or shipped interstate.
		6.0	Do not feed or pasture dairy animals or
			animals being finished for slaughter.
Guavas		10.0	Dust or spray. Do not apply after fruit
			begins to form. Do not feed treated
			forage to dairy animals or animals being
			finished for slaughter.
Hay		6.0	Do not feed treated forage to dairy
			animals or animals being finished for
			slaughter.
Hazel Nuts	7	10.0	Dust or spray. No time limitations.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**TOXAPHENE**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Hickory Nuts	7	10.0	Dust or spray. No time limitations.
Horseradish	7	3.0	Do not use treated tops for feed or food.
Huckleberries		4.0	Do not apply after fruit begins to form.
Kale	7	2.0	14 days (for dust). 28 days (for spray).
		4.0	21 days (for dust). 35 days (for spray).
Kohlrabi	7	8.0	Do not apply after edible parts begin to form or within 30 days of harvest.
Kumquats		10.0	Do not apply after fruit begins to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Leeks		4.0	Do not apply after seedling stage.
Lettuce	7	5.0	Do not apply after seedling stage on leaf lettuce. Do not apply within 7 days of harvest on head lettuce if outer leaves are to be stripped. Do not apply after heads begin to form if outer leaves are not to be stripped.
Loganberries	7	4.0	Do not apply after fruit begins to form.
Mangoes		10.0	Do not apply after fruit begins to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Mint			
Peppermint Spearmint		25.0	Soil application, preplant or before growth starts. Single application.
Mustard		5.0	Do not apply after seedling stage.
Nectarines	7	12.0	Do not apply within 40 days of harvest or after second cover spray.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**TOXAPHENE**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Oats	5	3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Oats			
Seed		2.0 oz./bu.	Do not use as food or feed.
Okra	7	5.0	Do not apply after pods begin to form.
Onions	7	5.0	Do not apply to green or spring onions.
Parsnips	7	5.0	Do not use tops for food or feed.
Passion Fruit		10.0	Do not apply after fruit begins to form. Do not feed treated forage to dairy animals or animals being finished for slaughter.
Peaches	7	12.0	Do not apply within 40 days of harvest, or after second cover spray.
Peanuts	7	25.0	Single soil application only. Do not apply after first cultivation.
		6.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Pears	7	16.0	Dust or spray. Do not apply within 40 days of harvest or after second cover spray.
Peas	7	5.0	Do not apply after pods begin to form if pods are to be used as food, or within 7 days of harvest if pods are not to be used as food. Do not feed vines to dairy animals or animals being fattened for slaughter.
Peas			
Seed		2 oz./bu.	Do not use as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Pecans	7	10.0	No time limitations.
Peppers	7	3.0	5 days.
		6.0	Do not apply after peppers begin to form.
Pimentos	7	2.0	2 days.
		5.0	Do not apply after edible parts start to form.
Pineapple	3	2.25	Apply when first whorl of flowers is open and repeat 7-10 days later. Do not feed waste from treated pineapples to dairy or meat animals.
		20.0	Preplanting soil treatment or at time of planting. Single application.
Plum		12.0	Do not apply within 40 days of harvest or after second cover spray.
Potatoes		6.0	Foliage treatment only. No time limitations.
Prunes		12.0	Do not apply within 40 days of harvest or after second cover spray.
Quinces	7	16.0	Do not apply within 40 days of harvest or after second cover spray.
Radishes			
Field	7	5.0	No time limitations.
Greenhouse			
Raspberries	7	4.0	Do not apply after fruits begin to form.
Rice	5	3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter. No limitation in the use of grain.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Rice		lbs. actual/A.	
Seed		2.0 oz./bu.	Do not use as food or feed.
Rutabagas	7	6.0	Do not use treated tops for food or feed.
Rye	5	3.5	Do not feed treated forage to dairy animals or animals being fattened for slaughter. No limitation on the use of grain.
Rye			
Seed		2.0 oz./bu.	Do not use as food or feed.
Salsify		3.0	Do not apply after seedling stage.
Shallots		3.0	Do not apply after seedling stage.
Sorghum	5	2.0	28 days. Do not apply more than once after heads start to form. Do not graze dairy animals or animals being finished for slaughter on treated fields. Do not ensile treated forage.
		3.0	40 days. Do not apply more than once after heads start to form. Do not graze dairy animals or animals being finished for slaughter on treated fields. Do not ensile treated forage.
Sorghum			
Seed		2.0 oz./bu.	Do not use as food or feed.
Soybeans		6.0	Do not feed treated forage to dairy animals or animals being finished for slaughter. No limitation on the use of threshed beans.
Soybeans			
Seed		2.0 oz./bu.	Do not use as food or feed.



**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**TOXAPHENE**

<b>USE</b>	<b>TOLERANCE (ppm)</b>	<b>DOSAGE</b>	<b>LIMITATIONS</b>
		lbs. actual/A.	
Spinach	7	4.0	Do not apply after seedling stage.
		2.0	21 days. Do not apply more than once per season.
Strawberries	7	3.0	Do not apply after fruit starts to form.
Sugar Beets		6.0	Do not feed treated tops to dairy animals or animals being finished for slaughter.
		3.0	60 days. Do not feed treated tops to dairy animals. If meat animals are treated with toxaphene for external parasites, remove tops from diet 6 weeks prior to slaughter.
Sugarcane		3.0	No time limitations.
Sweet Potatoes		5.0	To be used in field or plantbed. Do not feed treated vines to dairy animals or animals being finished for slaughter.
Swiss Chard		3.0	Do not apply after seedling stage.
Tomatoes	7	2.0	1 day.
		5.0	3 days.
Tropical Fruit:			
Avocados		50.0	To be applied to trunk, scaffold branches and soil. Do not apply when fruit is present. Do not feed treated forage to dairy animals or animals being finished for slaughter. Single application.
Bananas			
Guavas			
Mangoes			
Papayas			
Passion Fruit		5.0	Wet or dry bait formulations. Do not apply broadcast when edible parts are present.
Turnips		5.0	Do not apply after seedling stage if tops are to be used as food or feed.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Vegetables (Root Crops):			
Beets		15.0	Single preplanting soil treatment or before edible parts begin to form.
Carrots			
Garlic			
Horseradish		2.5	Wet or dry bait formulations. Do not apply when edible parts are present, unless dosage is within limits of other applications of this insecticide.
Leeks			
Onions			
Parsnips			
Potatoes			
Radishes			
Rutabagas			
Salsify			
Shallots			
Sweet Potatoes			
Turnips			
(Non-Root Crops):			
Asparagus		25.0	Single preplanting soil treatment or before edible parts begin to form.
Beans			
Blackeyed Peas			
Broccoli		2.5	Wet or dry bait formulations. Do not apply when edible parts are present, unless dosage is within limits of other applications of this insecticide.
Brussels Sprouts			
Cabbage			
Cantaloupes			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Kale			
Kohlrabi			
Lettuce			
Melons			
Mustard Greens			
Okra			
Peas			



USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
(Non-Root Crops): (Cont.)			
Peppers		25.0	Single preplanting soil treatment or before edible parts begin to form.
Pimientos			
Pumpkins		5.0	Wet or dry bait formulations. Do not apply when edible parts are present, unless dosage is within limits of other applications of this insecticide.
Rutabagas			
Spinach			
Squash (summer)			
Squash (winter)			
Swiss Chard			
Tomatoes			
Watermelons			
Velvet Beans		6.0	Do not feed treated vines or pods to dairy animals or animals being finished for slaughter.
Velvet Beans			
Seed		2.0 oz./bu.	Do not use as food or feed.
Vetch		2.5	Apply in early spring or after cutting before new growth is 4 inches tall.
		6.0	Do not feed treated forage to dairy animals or animals being finished for slaughter.
Walnuts	7	15.0	Dust or spray. No time limitations.
Watercress		4.0	Do not apply after seedling stage.
Wheat	5	3.5	Do not feed treated forage to dairy animals or animals being finished for slaughter. No restriction on the use of the grain.
Wheat			
Seed		2.0 oz./bu.	Do not use as food or feed.

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TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Animals:			
Beef Cattle	7 (in fat)	0.6% (in water)	Dip or spray. Do not apply within 28 days of slaughter.
		5.0% (dust)	Dust animals thoroughly. Do not apply within 28 days of slaughter.
		8.0% (in oil)	Apply by backrubbers. Do not permit animals access to treatment within 28 days of slaughter.
		2.0%	Apply locally as screw-worm and ear tick treatment. Formulated in combination with other insecticides as smear or liquid.
Dairy Cattle		2.0%	Apply locally as screw-worm and ear tick treatment. Formulated in combination with other ingredients as smear or liquid.
Goats	7 (in fat)	0.6% (in water)	Dip or spray. Do not apply within 28 days of slaughter.
Sheep		5.0% (dust)	Do not use on dairy goats. Dust animals thoroughly. Do not apply within 28 days of slaughter.
		2.0%	Apply locally as screw-worm and fleece worm treatment. Formulated in combination with other insecticides.
Swine	7 (in fat)	0.6% (in water)	Dip or spray. Do not apply within 28 days of slaughter.
		5.0% (dust)	Dust animals thoroughly. Do not apply within 28 days of slaughter.
		8.0% (in oil)	Apply by rubbing devices. Do not permit animals access to this treatment within 28 days of slaughter.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TOXAPHENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Agricultural Premises:		lbs. actual/A.	
Barns Sheds Animal shelters Fences Other farm building (excluding dairy barns)		400 mg./sq.ft.	Dust or spray. Apply to interior and exterior surfaces, also exterior of dairy barns.
Milk rooms		400 mg./sq.ft.	Limited application to selected surfaces. Do not contaminate milk or milk handling equipment.
Mushroom houses		400 mg./sq.ft.	Dust or spray. Apply to interior and exterior surfaces. Do not apply after beds are spawned and cased.
Grain Bins & Grain Elevators		400 mg./sq.ft.	Apply to interior and exterior surfaces as a residual treatment. Do not apply to or contaminated grain or other foods.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE

PRINCIPAL FORMULATIONS: 70.5% liquid; 5.0% and 7.5% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton		lbs. actual/A. 1.5 (liquid) 2.0 (dust)	Preharvest defoliation. Apply when 50% of bolls are open. Bottom defoliation at proportional rates where bolls have matured. Do not apply within 7 days of harvest.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRIBUTYLPHOSPHOROTRITHIOATE

PRINCIPAL FORMULATIONS:

75% emulsifiable concentrate; 5% dust

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Cotton	0.25 (cotton- seed)	lbs. actual/A. 1.5 (liquid) 2.0 (dust)	Apply when top bolls are firm to thumb pressure. A second application may be made 5-7 days later at the rate of 1.25 lbs./A. (liquid) or 0.75 lbs./A. (dust).

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3,3-TRICHLORO ALLYL DIISOPROPYLTHIOLCARBAMATE\*

PRINCIPAL FORMULATIONS: 46.2% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		lbs. actual/A. 1.25	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation before crop sprouts are 1/2 inch long. Do not graze livestock on treated areas.
Peas			
Dried Field		1.25	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation. Apply soon after planting. Do not graze livestock on treated areas.
Wheat			
Durham Spring		1.0	Preplanting soil incorporation. Plant crop within 3 weeks after application. or Preemergence soil incorporation before crop sprouts are 1/2 inch long. Do not graze livestock on treated areas.

\*Proprietary Name: "Avadex DM"

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USDA Summary of Registered Agricultural Pesticide Chemical Uses

TRICHLORODENIMETH\*

PRINCIPAL FORMULATIONS: 66% emulsifiable concentrate

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Irrigation Canals, Lakes and Ponds		50 gals. of concentrate per acre per ft.	Apply to water with submerged nozzles when aquatic weeds are growing.

\*TCE

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## 2,3,6-TRICHLOROBENZOIC ACID\*

**PRINCIPAL FORMULATIONS:** 26.1% liquid (as diethylamine salts of TBA);  
8.4% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Croplands (undesignated)		lbs. chlorinate benzoic acids/ acre  20 (0.5 lbs. Act./ 1000 sq. ft.)	Apply as spot treatment. Do not use area actually treated for crop production. Avoid drift to fields where susceptible crops are to be grown the same season. Do not contaminate water used for irrigation or for human or animal consumption.
Rangelands		20	Apply when weeds and brush are actively growing. Keep grazing animals off treated areas for at least 1 year after treatment. Do not contaminate water used for irrigation or for human or animal consumption.

\* 2,3,6-TBA

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TRICHLOROBENENE CHLORIDE\*

PRINCIPAL FORMULATIONS: 57.6% emulsifiable concentrate  
23.3% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn		lbs. actual/A.	
Field		7.0	Preemergence application. Do not apply where sprinkle or furrow irrigation is used. Do not use on peaty muck soils or soils with over 20% organic matter. Do not apply to land to be planted to sugar beets, tomatoes, lettuce, or potatoes the following year.
Hybridseed			
Pop			
Silage			
Sweet			

\* Use only in combination with a-chloro-N,N-diallylacetamide (CDAA)

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**1,1,1-TRICHLOROETHANE**

**PRINCIPAL FORMULATIONS:** 100% (solvent for chlorinated hydrocarbons);  
50.6% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Citrus Fruits:			
Grapefruit	Exempt	2.1 lbs./1000	Degreening, used with ethylene gas.
Kumquats	Exempt	cu. ft.(2 qts.)	Apply metered dosage over 24 hour period.
Lemons	Exempt	with methylene	Exposure should not exceed 72 hours.
Limes	Exempt	chloride	Aerate by fan for 12 hours.
Oranges	Exempt		
Tangeloes	Exempt		
Tangerines	Exempt		
Strawberries		3.5 lbs./ 1000 cu. ft.	Post-harvest fumigation. Expose to fumigation for 24 hours.
Agricultural Premises:			
Barns		30.0%	Used as a solvent for various insecti- cides.
Corrals			
Dairy Barns			
Fences			
Grain Bins			
Grain			
Elevators			
Hog Pens			
Poultry Houses			
Misc. Farm Bldgs.			

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TRICHLOROETHYLENE

**PRINCIPAL FORMULATIONS:** Used in fumigant mixtures or as a solvent with other toxic ingredients.

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Barley		0.4 gal./ 1000 bu.	Used in combination with other fumigants. No time limitations.
Corn			
Shelled		0.6 gal./ 1000 bu.	Used in combination with other fumigants. No time limitations.
Grains:			
Barley		1 gal. of 10% spray per	Used as a solvent in combination with other chemicals. Apply as spray over
Corn		1000 sq. ft.	surface of stored grain and adjacent
Oats			areas. Repeat as necessary.
Rice			
Rye			
Sorghum (Grain)			
Wheat			
Grain Sorghum		0.8 gal./ 1000 bu.	Used in combination with other fumigants. No time limitations.
Oats		0.4 gal./ 1000 bu.	Used in combination with other fumigants. No time limitations.
Wheat		0.4 gal./ 1000 bu.	Used in combination with other fumigants. No time limitations.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4,5-TRICHLOROPHENOXYACETIC ACID\*

PRINCIPAL FORMULATIONS: 1/ (Amine salts) 25.6% 57.2% liquids  
(Ester emulsifiable concentrates) volatile: 18% 57%  
low volatile: 8-90%: 5.19% triethanolamine salt

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Apples (McIntosh)		20 ppm spray (acid equiv.)	Preharvest drop control. Apply a single application 4-5 days before drop normally begins.
Grains, cereal (undesigned)		.5	Apply when grain is in tiller to boot stage and weeds are in actively growing condition. Do not apply from boot to milk stage or in seedling stage.
Pastures:			
Grasses		3	Heavy brush. Apply when in full leaf and after grass is well established.
		1	Light brush. Apply when leaves are fully expanded.
Rangeland clearance		4	Apply in spring by airplane when brush is in heavy foliage stage (40-90 days after leaves unfold).
Rice		1.25	Apply tiller to boot and before flooding (4-8 weeks after rice emerges).
		1.5	Apply after flooding (2-3 weeks) or 7-10 weeks after planting.
Sugar cane		1	Preemergence use only. (Louisiana) If cane is shaved and off-barred, treat immediately following this operation.
		4.5	Preemergence use only. (Hawaii) Apply just before cane emerges.
		1	Postemergence (weeds in established cane). Apply over row when weeds are growing vigorously. Do not apply after cane is 2 feet tall.

\*2,4,5-T

1/ May also be combined with 2,4-D and used at stooling stage on grain crops including barley, oats, and wheat, and on grass seed crops.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,4,5-TRICHLOROPHENOXYACETIC ACID

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Lakes Ponds		lbs. actual/A.  4 (with 20 lbs./A. 2,4-D as ester)	Broadcast application in early spring to summer. Do not use treated water for crop irrigation or livestock drinking water.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

2,3,6-TRICHLOROPHENYLACETIC ACID, SODIUM SALT\*

PRINCIPAL FORMULATIONS: 16.1% liquid

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Sugarcane		lbs. actual/A.	
		8.0	Preemergence application in fall as over- all spray shortly after planting cane. Do not use bagasse for feed or forage.
		6.25	Apply as band treatment over row at proportionate rates in spring to fall planted cane after shaving and off- barring and before weeds emerge. Do not use bagasse for feed or forage.

\*Proprietary Name: "Fenac"

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TRIETHANOLAMINE

**PRINCIPAL FORMULATIONS:** With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
<b>Animals:</b>  Beef Cattle Dairy Cattle Goats Sheep Swine		10%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

**TRIFLURALIN\***

**PRINCIPAL FORMULATIONS:** 44 $\frac{1}{2}$ % emulsifiable concentrate containing 4 lbs. actual/gal.;  
10 $\frac{1}{2}$ % wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Beans, dry (seed crop)		1.5	Preplanting or preemergence soil application. Incorporate with soil immediately. Do not graze or feed forage from treated fields to livestock. Do not use seed from treated fields for food, feed, or oil.
Cotton		1.5	Postemergence. Apply as directed spray up to lay-by. Do not apply within 120 days before harvest. Do not graze treated fields to livestock.
Cowpeas (seed crop)		1.5	Preplanting or preemergence soil application. Incorporate with soil immediately. Do not graze or feed forage from treated fields to livestock. Do not use seed from treated fields for food, feed, or oil.
Peanuts (seed crop)		0.75	Preplanting or preemergence soil incorporation. Use with Diphenamid. Do not graze treated area or feed forage from treated fields to livestock. Do not use seed from treated fields for food, feed, or oil.
Safflower (seed crop)		1.5	Preplanting soil application up to 2-3 weeks before planting, incorporate in soil immediately. Do not graze or feed forage from treated fields to livestock. Do not use seed from treated fields for food, feed, or oil purposes. or Preemergence application immediately after planting and incorporate with soil. Do not graze or feed forage from treated fields to livestock. Do not use seed from treated fields for food, feed, or oil purposes.

\*a,a,a-trifluoro-2,6-dinitro-N,N-di-propyl-p-toluidine

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Replaces page issued 7-1-64



## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TRIFLURALIN

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Soybeans		lbs. actual/A.  1.0	Preemergence soil application up to 3 weeks before planting. Incorporate with soil immediately. Do not graze or feed forage from treated fields to livestock. or Preemergence application at time of or immediately after planting. Incorporate with soil immediately. Do not graze or feed forage from treated fields to livestock.



# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TRIS (2,4-DICHLOROPHENOXYETHYL) PHOSPHITE\*

PRINCIPAL FORMULATIONS: 44% liquid; 10% granular

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Corn (field & sweet)		lbs. actual/A.  6.0	Preemergence application immediately after planting. Do not apply when seeds are shallow planted.
		2.0 with DNBP	Preemergence application at time of planting or before corn emerges. Do not apply to light sandy soil or to shallow planted corn.
Peanuts		3.0 with DNBP	Apply when germinating peanuts begin to break through ground (5-7 days after planting) or until first true leaves are formed.
Potatoes		1.5 (with DNBP amine salts)	Apply at time of emergence.
		4.0	Lay-by application following last cultivation and before weeds emerge.
Strawberries		4.0	Preplanting soil application immediately prior to planting and mix with 1-2 inches of soil.
			or Postharvest application.
			or Posttransplanting application 7-10 days after transplanting and repeated 4-8 weeks later. Do not use first year's crop for food.

\*2,4-DEP

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TURKEY RED OIL

**PRINCIPAL FORMULATIONS:** With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		25.0%	Formulated with various other ingredients as screw-worm remedies. Apply locally to wounds, etc. as needed until wounds have healed.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## TURPENTINE

**PRINCIPAL FORMULATIONS:** With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		10.0%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

VAPAM\*

PRINCIPAL FORMULATIONS: 32.7% water-miscible solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
All Crops		lbs. actual/A.  120-543	Cultivate 5-7 days after application. Do not plant within 7 days after treatment on light soils or 14 days on heavy soils. Do not plant within 30 days after treatment if soil temperature is below 60°F.
Vegetable Plant Beds		690  490	By flood irrigation, sprinkler, or drench application.  Cultivate 5-7 days after application. Do not plant within 14-21 days after fumigation.

\*Sodium N-methyldithiocarbamate dihydrate

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## XYLENE

**PRINCIPAL FORMULATIONS:** Used as a solvent or diluent for other ingredients

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bush & Vine Fruits:		lbs. actual/A.	
Blackberries		5.0 (in water)	Full coverage spray. No time limitation.
Blueberries			
Boysenberries			
Cranberries			
Currants			
Dewberries			
Gooseberries			
Grapes			
Huckleberries			
Loganberries			
Raspberries			
Strawberries			
Youngberries			
Field, Fiber, & Forage Crops:			
Alfalfa		5.0 (in water)	No time limitations.
Barley			
Birdsfoot			
Trefoil			
Buckwheat			
Clover			
Corn			
Cotton			
Flax			
Grasses			
Hops			
Lespedeza			
Millet			
Milo			
Oats			
Pasture Grass			
Peanuts			
Popcorn			
Rice			
Rye			
Safflower			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

XYLENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Field, Fiber, & Forage Crops: (Cont.)		lbs. actual/A.	
Sorghum Soybeans Sugar Beets Sugarcane Vetch Wheat		5.0 (in water)	No time limitations.
Seedbed Soil Fumigation		210.0	Preplant soil application to thoroughly pulverized soil under gas-tight cover. Expose to fumigation for 24 hours. Allow 3-6 days to lapse between time of application and planting.
Soil Fumigation (loose soil for greenhouses, plantbeds, cold frames, raised benches, etc.)		0.9 lbs./cu.yd.	Preplant soil application. Apply to thoroughly pulverized soil under gas-tight cover. Expose to fumigation for 24 hours. Allow 3-6 days to lapse between time of application and planting.
Tree Fruits:			
Apples Apricots Avocados Cherries Dates Figs Grapefruit Guavas Kumquats Lemons Limes Mangoes Nectarines Olives Oranges Papayas Passion Fruit Peaches Pears		7.5 (in water)	Full coverage spray. No time limitation.



## XYLENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Tree Fruits: (Cont.)		lbs. actual/A.	
Persimmons		7.5 (in water)	Full coverage spray. No time limitation.
Plums			
Pomegranate			
Prunes			
Quinces			
Tangeloes			
Tangerines			
Vegetables:			
Asparagus		2.0 (in water)	No time limitations.
Beans			
Beets			
Blackeyed Peas			
Broccoli			
Brussels			
Sprouts			
Cabbage			
Cantaloupes			
Carrots			
Cauliflower			
Celery			
Collards			
Corn			
Cowpeas			
Cucumbers			
Eggplants			
Endive			
Garlic			
Horseradish			
Kale			
Kohlrabi			
Leeks			
Lettuce			
Melons			
Mustard Greens			
Okra			
Onions			
Parsnips			
Peas			
Peppers			
Pimientos			

USDA Summary of Registered Agricultural Pesticide Chemical Uses

XYLENE

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Vegetables: (Cont.)		lbs. actual/A.	
Potatoes		2.0 (in water)	No time limitations.
Pumpkins			
Radishes			
Rutabagas			
Salsify			
Shallots			
Spinach			
Squash			
(Summer)			
Squash			
(Winter)			
Sweet Potatoes			
Swiss Chard			
Tomatoes			
Turnips			
Watermelons			
Animals:			
Beef Cattle		1.25% (in water)	Dip or spray. Thoroughly drench animals.
Dairy Cattle			
Goats			
Sheep			
Swine		45.0%	Screw-worm and ear tick remedies. Apply locally to cuts, wounds, and scratches, etc.
Agricultural Premises:			
Barns		15.0%	Apply thoroughly as a surface spray. Do not contaminate milk or milking equipment.
Dairy Barns			
Grain Bins			
Feed Rooms			
Hog Pens			
Poultry Houses			
Sheepfolds			
Milk Rooms			
Etc.			

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC ARSENATE

PRINCIPAL FORMULATIONS: Technical material

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Potatoes		lbs. actual/A. 8.5	Formulated with other ingredients. No time limitations.
Tomatoes		2.25	Formulated with other ingredients. Remove residues at time of harvest by washing or brushing.

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC CHLORIDE

PRINCIPAL FORMULATIONS: 53% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Pear		53% solution	Apply undiluted as a dormant treatment to pear blight cankers.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC DI-ETHYLDITHIOCARBAMATE - MERCAPTOBENZOTHAZOLE (MIXTURE)

**PRINCIPAL FORMULATIONS:** Zinc salt (powder) containing 59.8% dimethyldithiocarbamate and 5.2% 2-mercaptobenzothiazole

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	0.1 (Ziram)	7.8	Up to petal fall.
Blueberries	7 (Ziram)	1.0	Do not apply after second cover spray or within 3 weeks of harvest.
Potatoes		3.25	Up to harvest.
Tomatoes	7 (Ziram)	3.25	5 days.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC ION + MANGANESE ETHYLENE BISDITHIOCARBAMATE COMPLEX

PRINCIPAL FORMULATIONS: 80% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Bananas	15 (of which not more than 2 shall be in pulp)	lbs. actual/A. 3.2 0.38% solution	Aerial application only. Postharvest dip of cut hands or stems prior to shipment.
Cotton		1.2	In furrow or planterbox application only.
Papayas	10	2.0	No time limitations.
Pecans		15.0	60 days. Do not graze livestock on treated areas.
Peppers		1.8	Do not apply after fruit buds form.
Pineapples		16.0	Do not apply after fruit buds form.
Potatoes		1.6	No time limitations.
Sugarbeets		2.4	10 days. Do not feed treated tops to livestock.
Tomatoes		1.5	Do not apply after fruit buds form.

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# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC OXIDE

**PRINCIPAL FORMULATIONS:** With various toxicants as animal remedies

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Animals:  Beef Cattle Dairy Cattle Goats Sheep Swine		20.0%	Formulated with other ingredients and applied locally as a screw-worm or ear tick remedy.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC PETROLEUM SULPHONATE

PRINCIPAL FORMULATIONS: 15% solution

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Baskets Crates Boxes (for harvesting fruits and vegetables)		1 gal./2 gals.	Dip 1 minute or apply with brush or spray.



USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINC SULFATE MONOHYDRATE

PRINCIPAL FORMULATIONS: 89% wettable powder

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Peaches		lbs. actual/A. 43.0	No time limitations.

# USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINC TRICHLOROPHENATE

**PRINCIPAL FORMULATIONS:** 32% and 50% solutions

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		oz./100 lbs.	
Cottonseed:			
Fuzzy		3.0	Seed treatment. Do not use treated seed for food, feed, or oil.
Machine Delinted		3.0	Seed treatment. Do not use treated seed for food, feed, or oil.
Acid Delinted		3.0	Seed treatment. Do not use treated seed for food, feed, or oil.
Peanuts		3.0	Seed treatment. Do not use treated seed for food, feed, or oil.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB\*

PRINCIPAL FORMULATIONS: 75% wettable powder  
3.9%; 4.6%; 7.6%; 10.0%; and 16.25% dusts

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds		10.4	Dormant to petal fall and post-harvest.
Apples	7	7.6	No time limitations.
Apricots	7	7.6	Petal fall.
Asparagus		3.0	Post-harvest.
Barley		0.5 oz./bu. <sup>1/</sup>	Seed treatment (dry or slurry). Do not use treated seed for food or feed.
Beans	7	3.0	7 days.
		1.8	Seed and soil treatment.
		1.1 oz./bu. <sup>1/</sup>	Seed treatment (dry).
		0.8 oz./bu. <sup>1/</sup>	Seed treatment (slurry). Do not use treated seed for food or feed.
Beets	7 (roots)	3.0	7 days if tops are to be consumed.
	25 (tops)		
Blackberries	7	1.2	14 days.
Boysenberries	7	1.2	14 days.
Broccoli	7	4.8	7 days.
Brussels Sprouts	7	4.8	7 days.
Cabbage	7	4.8	7 days.
Cantaloupes	7	3.0	No time limitations.
Carrots	7	3.0	7 days if treated tops are to be used as food or feed.

\*Zinc ethylene bisdithiocarbamate

<sup>1/</sup> Used with captan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cauliflower	7	4.8	7 days.
Celery	7	3.0	No time limitations. Remove residue by washing and stripping.
Cherries	7	6.5	7 days.
Chinese cabbage	25	3.0	7 days.
Citrus fruits:			
Grapefruit	7	10.0	No time limitations.
Kumquats	7		
Lemons	7		
Limes	7		
Oranges	7		
Tangeloes	7		
Tangerines	7		
Collards	25	3.0	7 days.
Corn	7	3.0	Do not feed forage to dairy animals or animals being finished for slaughter.
		0.5 oz./bu. <sup>1/</sup>	Seed treatment (dry).
		0.5 oz./bu. <sup>1/</sup>	Seed treatment (slurry).
			Do not use treated seed for food or feed.
Cotton		1.5	Apply during rainy weather. Repeat at 10-14 day intervals. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields.
		3.75	Apply to row at time of planting.
Cottonseed:			
Acid delinted		1.1 oz./100 lbs. <sup>1/</sup>	Seed treatment (dry).
		1.1 oz./100 lbs. <sup>1/</sup>	Seed treatment (slurry).
Machine delinted		2.9 oz./100 lbs. <sup>1/</sup>	Seed treatment (dry).
		2.1 oz./100 lbs. <sup>1/</sup>	Seed treatment (slurry).
			Do not use treated seed for food, feed, or oil.

<sup>1/</sup> Used with captan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		1bs. actual/A.	
Cranberries	7	6.0	Apply when plants show 5% bloom and repeat 2 weeks later, or at mid-bloom.
Cowpeas		1.1 oz./bu. <sup>1/</sup> 0.8 oz./bu. <sup>1/</sup>	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Cucumbers	7	3.0	No time limitations.
Currants	7	3.0	7 days.
Eggplants	7	3.0	No time limitations.
Endive	25	3.0	7 days.
Flax		1.3 oz./bu. <sup>1/</sup> 1.0 oz./bu. <sup>1/</sup>	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food, feed, or oil.
Gooseberries	7	3.0	7 days.
Grapes	7	3.0	7 days.
Hops	60	3.0	14 days.
Kale	25	3.0	7 days.
Kohlrabi	7	2.4	Do not apply after edible parts are half grown.
Lettuce	25	3.0	5 days on head lettuce. 7 days on leaf lettuce.
Loganberries	7	1.2	14 days.
Melons	7	3.0	No time limitations.
Mushrooms	7	0.07-0.1 lb./ 4000 sq. ft.	Apply to casing soil between breaks.
Muskmelons	7	3.0	No time limitations.
Mustard Greens	25	3.0	7 days.

<sup>1/</sup> Used with captan

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
Nectarines	7	lbs. actual/A. 6.5	40 days.
Oats		0.5 oz./bu. <sup>1/</sup> 0.5 oz./bu. <sup>1/</sup>	Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Onions	7	3.0	7 days on green onions.
Peaches	7	6.5	30 days.
Pears	7	6.5	7 days.
Peas	7	2.1 <sup>1/</sup> 1.1 oz./bu. <sup>1/</sup> 0.8 oz./bu. <sup>1/</sup>	Preplanting soil treatment. Seed treatment (dry). Seed treatment (slurry). Do not use treated seed for food or feed.
Pecans		2.4 15.0	10 days. 45 days.
Peanuts	7	1.3	No time limitations. Do not use treated peanut hay for feed.
Peppers	7	6.5	No time limitations.
Plums	7	6.5	30 days.
Potatoes		3.0 1 lb./50 gals. water	Foliage application only. Seed piece dip.
		0.15 lbs. act./ 100 lbs.	Apply as a dust over cut or whole seed pieces.
Pumpkin	7	5.0	No time limitations.
Radishes	7	2.4	No time limitations.
Raspberries	7	1.2	14 days.
Rhubarb		4.0 <sup>2/</sup>	No time limitations.

<sup>1/</sup> Used with captan

<sup>2/</sup> Used in combination with ziram

## USDA Summary of Registered Agricultural Pesticide Chemical Uses

## ZINEB

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Romaine	25	3.0	7 days.
Sorghum (hulled)		0.8 oz./bu. <sup>1/</sup>	Seed treatment (dry or slurry). Do not use treated seed for food or feed.
Soybeans		0.8 oz./bu. <sup>1/</sup>	Seed treatment (dry or slurry). Do not use treated seed for food, feed, or oil.
Spinach	25	3.0	7 days.
Squash			
Summer	7	5.0	No time limitations.
Winter			
Strawberries	7	2.5	7 days.
Sugar beets		2.0	30 days. Do not feed tops to livestock.
Swiss chard	25	3.0	7 days.
Tomatoes	7	3.0	No time limitations.
Turnips			
Roots	7	3.0	No time limitations.
Tops	7	3.0	7 days if tops are to be used as food or feed.
Walnuts (black)		13.5	No time limitations.
Watermelons	7	3.0	No time limitations.
Wheat	1	2.1	3-4 weeks.
		0.5 oz./bu. <sup>1/</sup>	Seed treatment (dry or slurry). Do not use treated seed for food or feed.

<sup>1/</sup> Used with captan

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**USDA Summary of Registered Agricultural Pesticide Chemical Uses**

ZIRAM\*

**PRINCIPAL FORMULATIONS:** 7.6%, 10%, and 15% dusts;  
23.7%, 76.0% and 95.0% wettable powders; 8% paste

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Almonds	0.1	6.1	Early cover spray--5 weeks after petal fall.
Apples	7	7.6	Cover sprays no time limitations.
Apricots	7	7.6	Early cover sprays.
Bananas		8.0% (paste)	Brush application to cut stems or crowns.
Beans	7	3.0	Do not apply to snap beans within 4 days of picking.
Beets	7	3.0	7 days of harvest if beet tops are used as food or feed.
Blackberries	7	3.0	Mid-June to early July.
Blueberries	7	4.6	3 weeks after full bloom.
Broccoli	7	3.0	7 days.
Brussels Sprouts	7	3.0	No time limitations.
Bush Fruits	7	3.0	No time limitations.
Cabbage	7	3.0	7 days.
Cantaloupes	7	3.0	No time limitations.
Carrots	7	3.0	7 days if carrot tops are to be used as food or feed.
Cauliflower	7	3.0	7 days.
Celery	7	3.0	Remove excess residue by stripping, trimming, and washing.
Cherries	7	4.0	7 days.
Collards	7	3.0	No time limitations.

\*Zinc dimethyl dithiocarbamate



USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Cranberries	7	6.8	4 weeks after mid-bloom.
Cucumbers	7	3.0	No time limitations.
Eggplant	7	3.0	No time limitations.
Grapes	7	3.12 (spray)	Do not apply after fruit begins to form.
Kale	7	3.0	No time limitations.
Kohlrabi	7	3.0	7 days.
Loganberries	7	3.0	Do not apply after fruit begins to form.
Melons	7	3.0	No time limitations.
Muskmelons	7	3.0	No time limitations.
Nectarines	7	7.6	Early cover and before harvest. Remove excess residue by wiping or brushing.
Onions	7	3.8	No time limitations--do not apply to spring or green onions.
Peaches	7	7.6	Early cover and before harvest. Remove excess residue by wiping or brushing.
Pears	7	7.6	Cover sprays--no time limitations.
Peas	7	3.0	7 days.
Pecans	0.1	15.0	5 cover sprays--last spray no later than August.
Peppers	7	3.0	No time limitations.
Potatoes		3.0	Foliage application only.
Pumpkins	7	3.0	No time limitations.
Radishes	7	3.0	No time limitations.
Raspberries	7	3.8	Do not apply within 3 days of picking.

USDA Summary of Registered Agricultural Pesticide Chemical Uses

ZIRAM

USE	TOLERANCE (ppm)	DOSAGE	LIMITATIONS
		lbs. actual/A.	
Rhubarb		4.0 <sup>1/</sup>	No time limitations.
Spinach	7	3.0	No time limitations.
Squash			
Summer	7	3.0	No time limitations.
Winter			
Strawberries	7	4.6	Remove residues by washing if application is made within 7 days of harvest.
Tomatoes	7	3.0	No time limitations.
Turnips	7	3.0	No time limitations.
Watermelons	7	3.0	No time limitations.

<sup>1/</sup> Used with zineb

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